Sault Ste. Marie District Fisheries Management Plan: 1988 - 2000

Ontario

Ministry of Natural Resources

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SAULT STE. MARIE DISTRICT

FISHERIES MANAGEMENT PLAN

1988 - 2000

PREFACE

This report contains a summary of fisheries resource information, problems and issues affecting the fisheries resource; fisheries management direction in the form of objectives, targets, strategies, tactics, and a programme implementation schedule. Collectively these sections make up the Sault Ste. Marie District Fisheries Management Plan.

This Plan has been prepared in the context of broad objectives and targets laid out in the District Land Use Guidelines, the Lake Superior Strategic Fisheries Plan, and the Lake Huron Strategic Fisheries Management Plan. It is intended to direct fisheries management activities in the Sault Ste. Marie District to the year 2000. The plan also provides the basis for measuring the success or failure of the fisheries management programme by either the public or fisheries managers.

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INTRODUCTION

PURPOSE

The purpose of the management plan is to direct the Ministry of Natural Resources' efforts to more effectively and efficiently manage the fisheries resource within the Sault Ste. Marie District. The plan accomplishes this by:

- providing specific direction to resource managers
- making a public statement of fisheries management intentions
- providing opportunities for public involvement in the management process

The result is a flexible, pro-active approach to managing the fisheries resource in the Sault Ste. Marie District.

Implementation of the plan will result in improved fisheries and higher quality angling opportunities. The development of a strong fisheries resource base will benefit sport, commercial, and native subsistence fishermen, as well as the tourism industry. This will in turn provide economic benefits to local communities and ensure healthy fish stocks.

THE PLANNING PROCESS

The Fisheries Management Plan was prepared within a Provincial framework of planning quidelines and policies. Its technical direction came from accepted resource management principles laid down in the Strategic Plan for Ontario Fisheries (SPOF).

Broad objectives and targets were established on a regional basis in the Strategic Land Use Plan (SLUP) for Northeastern Ontario. Within this planning framework the District Land Use Guidelines (DLUG), Lake Superior Strategic Fisheries Plan (LSSFP), and the Lake Huron Strategic Fisheries Management Plan (LHSFMP) refined the objectives and targets of SLUP at the district and the lake-wide levels for Lakes Superior and Huron respectively. These DLUG targets,

and those of the two lake plans are intended to be met through the development and implementation of individual resource management plans, such as the District Fisheries Management Plan (DFMP).

Preparation of the DFMP, was carried out under the guidance of an inter-disciplinary team, within the district and regional offices, in order to ensure input from a broad range of land use activities, as well as to ensure proper consideration of Ministry policies, regulations, technical information, and public input.

Involvement by the public and other programme staff within the Ministry of Natural Resources (MNR) has been essential in ensuring that other resource uses are identified and integrated into the DFMP.

The DFMP establishes management direction for the long term as well as for the short term at five year intervals. The five year implementation schedule suggests strategies and tactics consistent with the long term objectives and targets, while the annual work plan assigns the priority for carrying out the tactics required to attain the targets and meet the objectives.

The Plan will be reviewed at five year intervals or whenever major revisions are necessary. Significant modifications will follow the same approval process as the original document involving public review and approval by the District Manager and Regional Director. Approved changes will be reflected in the District Land Use Guidelines and other affected resource management plans and likewise, the fisheries management plan may be revised to reflect major revisions in the District Land Use Guidelines or other resource management plans.

The Implementation Schedules identifying tactics to be carried out for the ensuing five year period will receive an annual internal update by the district. However, new Implementation Schedules covering the subsequent five year periods of the management plan will be formally included in the management plan only every five years with the approval of the Regional Director and be subject to public consultation.

It is understood that changes may occur over time requiring adjustments to the DLUG, LSSFP, LHSFMP or the DFMP. Changes

in one will be reflected by changes in the other, and will be carried out using the public review process.

Specific projects carried out to implement the plan may be subject to the Environmental Assessment Act, and compliance with this Act may require changes to specific tactics in the DFMP.

It is important to note that this plan recognizes sport fishing, commercial tourism, commercial fishing, native subsistence fishing, and non-consumptive viewing as legitimate and important uses of the fisheries resource.

BACKGROUND INFORMATION

The management plan is based on a thorough analysis of all the available background information pertaining to the Sault Ste. Marie District fisheries resource. This information is available in the District Office.

The background information describes the present fisheries resource in the Sault Ste. Marie District. Measurements of current resource use are reported as well as projected resource use to the year 2000. The ability of the resource to meet the year 2000 targets has been tested and present management techniques have been described. Problems and issues facing the fisheries resource have been identified and strategies and tactics for dealing with these problems and issues have been suggested.

A summary of this information was published and distributed under the title Backgound Information and Optional Management Strategies and Tactics: A Summary in April 1987.

Public review of the background information was centered around open information exchanges held in late April and early May of 1987 in conjunction with meetings with various user groups.

PUBLIC INVOLVEMENT

Public participation is an integral part of the fisheries management planning process. A general mailing of

Background Information and Optional Management Strategies and Tactics: A Summary, which contained a questionnaire, was distributed to a wide variety of individuals, companies, associations, and user group representatives for review. Two open information exchanges were held at the Ministry's District Office on April 30 and May 7, 1987. Meetings were held with various user groups (Batchawana Tourist Association, government officials, commercial fishermen, and a user group committee) and briefs were submitted by the Sport Fishing Development Program (SFDP) for the city of Sault Ste. Marie and the Sault and District Anglers Association (SDAA).

A detailed summary of the results of the public questionnaire, user group meeting, and briefs is presented in A Summary of Public Response to the Background Information and Optional Management Strategies for the Sault Ste. Marie District Fisheries Management Plan which is available for public viewing at the Sault Ste. Marie District Office.

Additional resource information, strategies, tactics, and management direction were identified during public consultation and were reflected in the draft plan.

A general mailing of "A Draft Fisheries Management Plan for the Sault Ste. Marie District: 1988-2000 took place in late November, 1987, and this was followed up by a two day open information exchange (December 16 and 17, 1987) and meetings with various user groups (Batchawana Tourist Association, Sault and District Anglers Association, government officials, commercial fishermen, and a user group committee). Questionnaires, included with the draft plan mail out, were returned by 65 individuals and briefs were submitted by the Sault and District Anglers Association, the City of Sault Ste. Marie, the Lake Huron Commercial Fishermen's Association and the Ontario Federation of Anglers and Hunters. A summary of these comments is available for public viewing at the Sault Ste. Marie District Office. These responses have been reviewed by fisheries management staff and have been integrated into this plan where compatible with good fisheries management practices and objectives.

DISTRICT FISHERIES PERSPECTIVE

THE RESOURCE

The Sault Ste. Marie District is one of seven Districts in the Northeastern Administrative Region of the Ministry of Natural Resources. It includes waters of Lake Superior, Lake Huron, and the connecting St. Marys River (Figure 1).

Most of the Sault Ste. Marie District is underlain by the Precambrian Shield. The exceptionally rugged terrain has resulted in many coldwater lakes, rivers, and streams which are low in productivity, but well suited to brook and lake trout populations. The District is drained by several large rivers: the Montreal, Batchawana, Chippewa, Goulais, Garden, Echo, Thessalon, and the Aubinadong Rivers.

As the Precambrian Shield dips away to the south, the terrain changes to sedimentary rock with granitic, shield outcrops, and eventually to a completely sedimentary base on St. Joseph Island. St. Joseph Island is part of the Bruce Penninsula - Manitoulin Island chain and physiographically is very similar. It is in this southern portion of the District that warmwater lakes and streams are found.

By far the largest portion of the District's fisheries resource consists of coldwater species. Brook trout and lake trout are the prime inland species with many lakes having self-sustaining populations. Most of the lakes are small, averaging less than 90 hectares, with Ranger Lake being the largest inland lake at 2195 hectares. Lake trout, rainbow trout, and Pacific salmon are the most important coldwater species in Lake Superior, Lake Huron, and the St. Marys River.

The Sault Ste. Marie District has identified 26 Class A lake trout lakes (populations maintained by natural reproduction) and 27 class B lake trout lakes (populations maintained by some natural reproduction or by stocking). As well, there are 39 known brook trout lakes which have self sustaining natural brook trout

MAP 1

PROVINCIAL AND REGIONAL SETTING OF SAULT STE. MARIE DISTRICT

Sault Ste. Marie District

District Administrative Boundary

Northeastern Region Administrative Boundary

Provincial Boundary

International Boundary

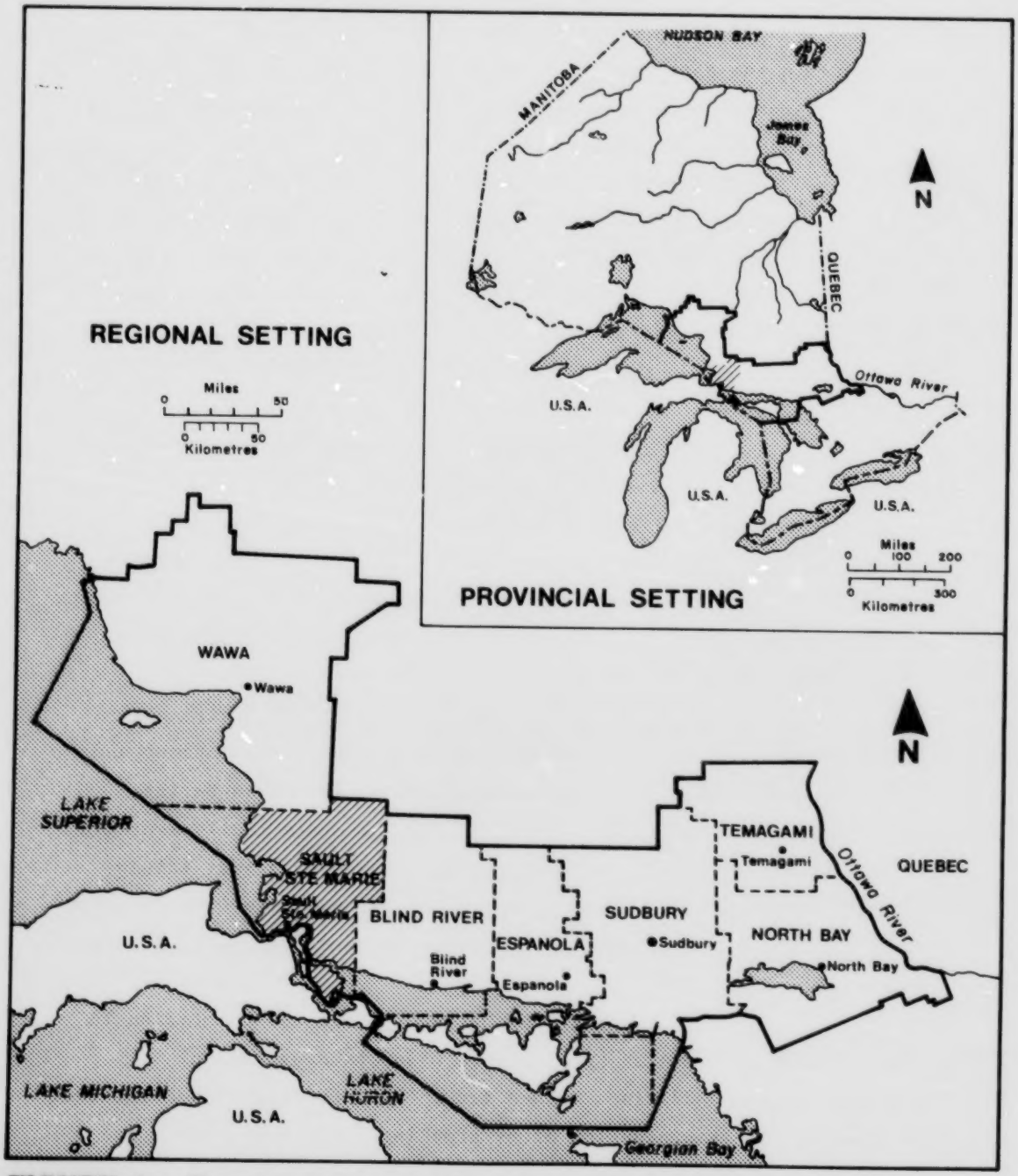

FIGURE 1. Provincial and Regional Setting for the Sault Ste. Marie District.

populations. There are another 62 lakes that are maintained or suplemented by stocking. Not all lakes in the District have been surveyed.

Warmwater species, particularly walleye, are in very short supply in inland waters. There are only 13 known inland walleye lakes, most of which are found in the southern portion of the District. The Lake Huron portion of the District has good walleye populations, in addition to northern pike and smallmouth bass, but Lake Superior has only remnant walleye populations left in Batchawana and Goulais Bays.

Limited road access presently occurs in a relatively small area in the northeastern corner of the District. Timber harvesting operations will; however, be moving into this area over the next seven to eight years. As a result of the ease of access, the potential for remote fly-in type tourism in the District is very limited. There are currently 36 known tourist establishments in the Sault Ste. Marie District catering to anglers.

RESOURCE USE

Sport Fish

The current estimated sport fishing effort for the Sault Ste. Marie District is 150900 angler-days (one angler-day = four angler-hours) which yields an estimated harvest of 116400 kg of fish per year (Table 1).

Lake Superior contributes 29700 angler-days and 37300 kg of fish per year to the Sault Ste. Marie District total. Species harvested consist of rainbow trout (58%), lake trout (10%), yellow perch (10%), lake whitefish (6%), and northern pike (6%); and brook trout, Pacific salmon, walleye, smallmouth bass, and muskellunge account for the remainder (10%).

Lake Huron contributes 36000 angler-days and a yield of 44200 kg of fish to the District total per year. The harvest consists of pink salmon (37%), northern pike (32%), chinook salmon

(14%), rainbow trout (5%), and yellow perch (5%); lake trout, splake, brook trout, brown trout, coho salmon, walleye, lake whitefish, herring, smallmouth bass, sturgeon, brown bullhead, and panfish account for 7%.

The inland portion of the District contributes 85200 angler-days of effort and 34900 kg of fish per year to the District total. The inland portion of the Sault Ste. Marie District consists primarily of lake and brook trout waters; however, there are a few lakes containing splake or rainbow trout. Warm and cool water species such as walleye, pike, and smallmouth bass are primarily found in the portion of the District east and south of Echo Bay.

Commercial Food Fish

Commercial food fishing is permitted only in defined waters of Lake Superior and Lake Huron which excludes some inshore areas and the St. Marys River. There is no licenced inland commercial food fishery. The Sault Ste. Marie District currently administers 21 commercial licences, only one of whom operates in Lake Huron. The commercial harvest is regulated by MNR through a quota system for which the baseline information is supplied by two fisheries assessment units: the Lake Superior Fisheries Unit, and the Lake Huron Fisheries Assessment Unit. Commercially harvested species are lake trout, whitefish, pink salmon, herring, and chub in Lake Superior, and lake trout, splake, whitefish, pink salmon, walleye, and northern pike in Lake Huron. A three year experimental quota for smelt in Lake Superior will not be renewed in 1988. Table 2 summarizes the commercial food fish harvest in the Sault Ste. Marie District.

Commercial Baitfish

As of 1985 there were 19 licences for harvesting baitfish and 22 licences issued to sell baitfish. The harvest is summarized in Table 2 and consists of dace, chub, sucker, shiners,

and other minnows. Approximately half of the total harvest consists of dace species. It is worthy to note that 52 percent of the baitfish sold by District suppliers were purchased outside of the District.

Native Subsistence Fishery

Limited knowledge of the current effort and harvest by native fishing is available. It is thought that the harvest is significant, particulary in southeastern Lake Superior. In addition concern has been expressed by the non-native public regarding conservation of walleye stocks in the North Channel of Lake Huron. Negotiations are presently ongoing at both the Provincial and Federal level to address native land claims and fishery related issues.

PROJECTED USE

Lake Superior is generally seen as the area with the greatest potential for an increase in sport fishing. There is a general thrust towards improving and increasing access to Lake Superior, increasing and expanding the stocking programme, and directing angler effort to Lake Superior over the life of this plan. Consequently, a 57 percent increase in sport fishing effort is anticipated for Lake Superior with angler effort increasing from 29700 to 46700 angler-days (Table 1).

The quality standard (kilograms per opportunity) is presently 1.3 kg/opp for Lake Superior and although the Lake Superior Strategic Fisheries Plan calls for a lake-wide quality standard of 1.0 kg/opp, the Sault Ste. Marie District will attempt to increase the standard to 1.5 kg/opp in the Sault District waters of Lake Superior. Thus, the harvest target for Lake Superior by the year 2000 is 70000 kg of sport fish (Table 1).

A questionnaire in the background summary document showed that 50 percent of anglers prefer to fish for trout, 19 percent prefer walleye, and 31 percent prefer other species. Given an anticipated 12 percent increase in sport fishing effort for inland waters by the year 2000, and an improved quality standard of 0.5 kg/opp (Table 1), projected harvest figures of 23800 kg for trout, 8100 kg for walleye, and 14800 kg for other species are produced (Table 1). Projected use of trout is slightly higher than the potential yield (21700 kg) but it is believed that an improved stocking programme in combination with individual strategies designed to minimize overharvest problems can make up the difference.

The walleye potential yield (4000 kg) is well below the projected use level (8100 kg) and there is not sufficient production of walleye in the North Channel or Lake Superior to satisfy projected future use. The District's concern for walleye is intensified since there is very little existing data on any District walleye populations, Lake Superior walleye populations have declined dramatically from historic levels, inland walleye populations are few and very heavily exploited, and North Channel - St. Marys River walleye stocks are commercially harvested with quotas essentially being filled in one location. The Sault Ste. Marie District cannot meet the projected year 2000 demand for walleye; however, there are a number of tactics that will be employed to increase the supply of walleye.

The projected use for Lake Huron would increase by 12 percent increasing the total angler effort from the current level of 36000 angler-days to 40300 angler-days. The targetted quality standard for the entire North Channel of Lake Huron is 1.0 kg/opp, and when applied to the Sault District waters would produce a target harvest of 40300 kg. This is somewhat lower than the present quality standard; however, with plans for an increased and expanded stocking programme in the St. Marys River, the actual standard is likely to be higher than the present value of 1.2 kg/opp.

Projected use of commercial baitfish and commercial food fish for Lakes Superior and Huron are shown in Table 1.

Table 1. Sport and Commercial fish production and harvest, Sault Ste. Marie District.

		Current Use			Projected, Year 2000 Use			
Zone	Species	Angler-Days	Harvest (kg)	Qu. Std.+ (kg/opp)#	Potential Yield (kg)	Angler-Days	Qu. Std.+ (kg/opp)#	Harvest (kg)
Inland	Trout				21700	47700	0.5	23800
	Walleye				4000	18100	0.5	8100
	Other				33400	29600	0.5	14800
	TOTAL	85200	34900	0.4	59100	95400	0.5	46700
Baitfish*	All Species		22400		Unk			46700
Lake Superior	Sport	29700	37300	1.3	Unk	46700	1.5	70000
	Commercial	L.Trout	22800		64100			40000
		Coregonids **	89000		169700			176000 ****
		Others ***	Unk		Unk			74400
	TOTAL		Unk		Unk			360400
Lake Huron	Sport	36000	44200	1.2	27900	40300	1.0	40300
	Commercial	Salmonids	300		15000			600
		Whitefish	3400		1700			4200
		Walleye	2800		4200			2800
		N. Pike	500		1400			300
	TOTAL		51200		50200			48200
District	Sport	150900	116400	0.8	Unk	182400	0.9	156000
	Commercial		Unk		Unk			338600
	TOTAL		Unk		Unk			494600

* - Use, potential yield, and target for baitfish is reported by the dozen, not by kilograms.
** - Coregonids consist of whitefish, herring, and chub.
*** - Others consist of smelt, pink salmon, and species with no quota such as suckers. The smelt harvest will be discontinued in 1988.
**** - District targets for Lake Superior could not be divided among the various districts based solely on potential yields and area of waters due to the uneven distribution of commercial fisheries on the lake. This quota is related to present stocks and may need to be adjusted for the next five year planning period (1993 - 1998).
\+ - Qu. Std. = Quality Standard
\# - kg/opp = kilograms per opportunity

PROBLEMS AND ISSUES

A review of the background information and analysis of public response has identified a number of broad problems or issues affecting the fisheries resource in the Sault Ste. Marie District. These problems or issues must be dealt with if our objectives and targets are to be effectively met. They are listed and briefly described below in order ranked by public review.

- EXPLOITATION in the Sault Ste. Marie District is unevenly distributed. Exploitation is a problem in accessible coldwater lakes, inland walleye lakes, Lake Superior (particularly Batchawana Bay), and some northern pike waters. The problem is compounded by the relatively low productivity in the coldwater areas (which make up the largest portion of the District) when compared to warmwater productivity. The exploitation problem is being further influenced by an unregulated native fishery and incidental and over quota harvest by some commercial fishermen.

- LACK OF PUBLIC AWARENESS AND UNREALISTIC RESOURCE DEMANDS result in unrealistic expectations about resource capability and management success. The public is generally unfamiliar with fundamental fisheries management concepts, the sensitivity of the resource, and interpretation of visible symptoms of population stress (such as few fish, small fish, large fish, etc.)

- USER CONFLICTS exist between sport fishermen and commercial tourist operators; between sport fishermen and commercial food fishermen ; between native fishermen and sport fishermen; between commercial fishermen and tourist operators in the North Channel; and between consumptive and non-consumptive users.

- HABITAT LOSS AND/OR DEGRADATION result from natural phenomena ranging from background mercury and other heavy metals to pollution and physical destruction or alteration of habitat. The loss of wetlands in the St. Marys River, St. Joseph Island, and North Channel areas due to filling and dredging is a prime example of habitat loss or degradation.

- INADEQUATE FISHERIES INFORMATION makes it difficult to address some fisheries concerns such as the Pacific salmon stocking programme, potential yield in the Great Lakes, and rehabilitation of fisheries such as in Batchawana Bay and the Goulais River. Inland, we lack information on population status of lake and brook trout in many lakes, critical spawning and nursery habitat, and baitfish resources.

- UNDESIRABLE SPECIES INTRODUCTIONS, such as smelt, perch, and rock bass, have a direct negative impact on important sportfish, particularly lake trout and brook trout, through competition for the forage base. Adelaide, Paquette and Maple Lakes are examples of waters which have had undesirable species introduced and now have degraded coldwater fisheries.

MANAGEMENT DIRECTION

INTRODUCTION

The general groundwork for managing the fisheries resource has been laid down in several Ministry documents. These include the Strategic Land Use Plan, District Land Use Guidelines, Strategic Plan for Ontario Fisheries, Lake Huron Strategic Fisheries Management Plan, Lake Superior Strategic Fisheries Plan, and the fisheries management planning process itself.

This section of the plan outlines the broad and specific management objectives and targets, discusses management direction gained from the planning process, and presents the strategies and tactics to be used to achieve these long term fisheries objectives and targets. These strategies and tactics have resulted from public consultation as well as careful and thorough analysis of available information.

OBJECTIVES AND TARGETS

The broad and the specific targets of the fisheries management programme are presented in Table 3.

As a result of the planning process, the sport and commercial fishing targets have changed from those stated in DLUG, hence, an amendment to the DLUG target will be required and will be made upon final approval of this plan.

MANAGEMENT STRATEGIES AND TACTICS

There are a number of strategies and tactics available to address the problems and issues that face the fisheries resource. The selected strategies and tactics shown in Table 4 represent a mix of technical soundness, practicality, monetary cost, and public acceptance. Table 4 includes a brief description of how the tactics will assist in reaching the desired targets.

Table 2. Fisheries Management Objectives and Targets for the Sault Ste. Marie District.

Broad Fisheries Management Objective

To protect, enhance, maintain, and rehabilitate fish communities and their environment in order to provide an optimum contribution of fish, fishing opportunities and their associated benefits to society.

Sport Fishing Objectives

To maintain opportunities for diversified angling experience and meet the future angling demand for all species within the limits of sustained yield management.

To manage for the survival and maintenance of significant lake trout populations, as well as the provision of angling opportunities.

Commercial Fishing Objective

To encourage the harvest of commercial fish populations when it is biological and economically feasible.

Sport Fishing Target

The target is to increase the sport fish supply to 156,000 kilograms per year by the year 2000.

The 107 lake trout lakes in the District have been evaluated and classified according to their ability to produce and maintain a lake trout population. Management effort will be concentrated on those 67 lakes with the highest potential (A and B lakes).

Commercial Fishing Targets

By the year 2000, the District will encourage an increase in the current annual commercial fish harvest for all species in Lake Superior within the District to 290400 kilograms, and in Lake Huron within the District to 7900 kilograms.

To encourage an increase in the harvest of baitfish from inland waters to 46700 dozen by the year 2000.

TABLE 3. Management strategies and tactics for the Sault Ste. Marie District.

Problem/Issue Strategy Tactic /	Relationship of Tactic to Target Achievement
Exploitation	
Control Harvest	
• designate areas as fish sanctuaries during spawning season	• protects spawning fish, ultimately yields more angling opportunities based on increased production
• close rainbow trout season on non-fishable Lake Superior tributary streams	• will offer protection to spawning rainbow trout in tributaries that are essentially non-fishable
• protect remnant walleye population in the Goulais River	• protection of these large spawners is an essential component of rehabilitation efforts
• develop a trophy fishery for lake and brook trout	• will produce higher quality and unique angling opportunities
• develop fly-fishing only areas for riverine brook trout	• will produce unique, high quality angling opportunities
• develop a high quality brook trout fishery through reduced limits, split seasons, and live bait restrictions in six townships	• will reduce angling opportunities, but will ultimately produce and maintain high quality and unique angling opportunities
• encourage the upgrading of existing facilities and the initation of design studies and construction for new access points for the Great Lakes shoreline	• will assist in re-distributing angler pressure to large fishery while reducing pressure on more sensitive inland fisheries; accesses more angling opportunities

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
Exploitation (Cont'd)	
Control Harvest (Cont'd)	
. encourage aquaculture of commercial food fish	. reduces user-conflict between commercial, sports and native fishermen; reduces pressure on natural stock; may be more cost effective
. promote catch and release technique	. reduces pressure on the resource while permitting more angling opportunities
. more effective enforcement through the development and implementation of a District enforcement plan	. reduces pressure on the resource through reduction of illegal activities and makes more effective use of enforcement personnel
. promote special use areas identified in this plan (eg. high intensity day use area)	. encourages anglers to make use of these opportunities, promotes awareness of why they are necessary, and redistributes pressure to more intensely managed areas
Expand Present Stocking Programme	
. evaluate stocking efforts for success	. permits refinement in the number of fish stocked and the lakes into which they are stocked in order to make best use of available stock
. improve present stocking methods by making use of scatter plants on Lake Superior, annual plantings in high use areas, two or three year rotations in medium quality areas, and occassional plantings in other areas	. the District can make most effective use of the available stock and produce the highest return to the angler
. develop and maintain a variety of high use fishery opportunities via a high intensity day-use area and a circle route	. provides more angling opportunities closer to population centre and major travel routes; benefits tourism

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
Exploitation (Cont'd)	
Expand Present Stocking Programme (Cont'd)	
• stock F1 splake*, rainbow trout, and brown trout on put-delayed-take basis in intensive use areas	• provides an increase in angling opportunities and diversity of angling experiences; provides a variety of angling types for a variety of angling experience and capability
• introduce walleye in rehabilitated spawning grounds	• will result in increased production of walleye and hence an increase in walleye angling opportunities
• introduce walleye to new waters	• will result in increased production of walleye and hence an increase in walleye angling opportunities
• stock lakes which have been damaged by undesirable species (perch, rock bass, or smelt) with walleye or smallmouth bass	• introduction of undesirable species often results in the loss of trout angling opportunities and this tactic will replace those lost opportunities with walleye and smallmouth bass opportunities
• encourage stocking of walleye fingerlings in Batchawana and Goulais Bays through CFIP projects	• this tactic will permit public involvement in the management process and will result in more walleye angling opportunities
• encourage pond culture for walleye CFIP projects	• will result in greater walleye survival and hence more angling opportunities
• permit stocking of salmon in Batchawana and Goulais Bays of Lake Superior	• will help to satisfy public and tourism demand for more salmon angling opportunities before lake trout rehabilitation is complete
• stock lake trout in Batchawana Bay	• will provide more angling opportunities and broaden the fisheries base for the tourist industry
Restore and/or Enhance Habitat	
• rehabilitate spawning grounds	• increases production of fish and hence return to angler

* F1 splake = brook trout/lake trout cross

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
Exploitation (Cont'd)	
Restore and/or Enhance Habitat (Cont'd)	
. increase Bar River walleye sanctuary and designate other sanctuaries	. permits more fish to spawn, increases production, and increases the return to the angler
. remove barriers or offer alternatives to spawning run impasses	. removal of some beaver dams or log jams and allowing fish to pass lamprey barriers will increase production and return to anglers
. prevent habitat degradation through more rigid enforcement	. prevents further loss and costly rehabilitation of damaged fish habitat
. identify potential sites for the creation of new spawning sites and improve habitat by encouraging wider participation in habitat related CFIP projects	. will result in increased production and return to the angler
Promote Angling for Under-used Species	
. encourage the development of an angling methodology programme (eg. Fish On! type videos)	. will encourage the use of under-used species through education and information; spreads out angling pressure
. advertise and educate anglers in the enjoyment value of angling for this portion of the resource	. helps to take angling pressure off trout and walleye
. direct tourist operators towards this portion of the resource	. broadens resource base for tourist industry, provides another selling point; spreads out exploitation
. encourage the development of pamphlets on how to catch, clean and prepare as well as where to catch commonly under-used species	. redirects exploitation to under-used portion of the resource

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
Public Awareness and User Perceptions	
Develop an Extension Programme to Educate the Public and User Groups	
• introduce conservation ethics and fisheries management principles through the school curriculum	• instills awareness and sound values in future users of the resource
• pro-actively liaise with the media	• produces a sound working relationship and hence more positive coverage of management activities
• increase television exposure	• more positive portrayal of management techniques, hence better understanding by the public
• hold public seminars	• increases public awareness and understanding through hands-on type experiences
• develop mutual awareness in natives and non-natives	• develops a better understanding and appreciation of of the other's viewpoint; promotes co-operation
Encourage More User Group Participation in Fisheries Management Programmes	
• form a permanent user group committee to discuss related problems	• promotes a better understanding of how problems and/or issues are perceived by the user groups and the Ministry; permits a pro-active approach to solving resource related problems and/or issues before they become major
• encourage more pubic involvement in the Community Fisheries Involvement Programme (CFIP)	• instills a greater appreciation in the public for the complexity of the resource and problem solving and gives them a hand in actually managing part of the resource
• educate co-managers with respect to proper resource management	• provides for a greater degree of success in public, hands-on management exercises
• encourage the Algoma Central Railway to assist with the management of waters within their landholdings	• permits user group participation in management and will produce and maintain more angling opportunities providing more and higher quality experiences for their lease holders

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
Public Awareness and User Perceptions (Cont'd)	
Increase Opportunities for Non-Consumptive Users	
. expand fish culture viewing facilities to accommodate tourists	. provides a drawing card for tourism and provides an education opportunity to managers
. publicize viewing areas	. promotes tourism and education of the public
. provide viewing opportunities at salmonid spawning run locations	. promotes tourism and education of the public
User Conflicts	
Promote Co-operation Among User Groups	
. set up a permanent user group committee with a representative from each faction involved to air views	. promotes a better understanding of how problems and/or issues are perceived by the user groups and the Ministry; permits a pro-active approach to solving resource related problems and/or issues before they become major
. hold regular meetings between user groups to discuss problems and/or specific issues	. a more direct way of problem solving than the user group committee
. educate user groups	. will ultimately produce more reasonable negotiations at an earlier stage of conflict resolution with less antagonation
. allocate fish resource between commercial and sport users	. will reduce major conflicts over resource use
. encourage commercial fishermen to adjust the timing and method of harvest	. will help to minimize conflict among users

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
User Conflicts (Cont'd)	
Promote Co-operation Among User Groups (Cont'd)	
• encourage commercial and sport users to develop mutually acceptable resolutions for issues of conflict	• may be more effective than imposed solutions
• protect high quality fishing in tourism outpost lakes; considering public input	• recognizes the importance of these fisheries to the tourism industry, as well as the right for public access
Continue to Enforce Fisheries Laws where Conservation and the Unlicenced Sale/Barter of Fish are at Issue	
• encourage the development of a native conservation officer	• will result in improved communication, understanding, and ultimately co-operation by natives
• actively discourage fish buyers from purchasing fish from unlicenced fishermen through regular enforcement programme	• will help to contol the illegal harvest of fish
• encourage natives to purchase sufficient commercial fish quota (under the authority of a commercial fishing licence)	• will help to provide natives with food fish and supplementary income through a means that is compatible with resource conservation

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
User Conflicts (Cont'd)	
Respect Treaties and Direction from the Courts and Provincial Policy	
. continue to work towards development of a negotiated native fishery agreement	. the Provincial goal for problem and conflict resolution
. permit natives to take a reasonable amount of fish for food without jeopardizing the health of the fishery	. recognizes native rights yet attempts to minimize conflict with other resource users
. discourage the unlicenced sale and barter of fish	. promotes conservation of fish stocks yet recognizes native rights
Encourage Native Involvement in the Fisheries Management Programme	
. include native representatives on the permanent user group committee	. promotes greater understanding of native and non-native issues among non-native and native users; attempts to reduce potential conflicts
. work co-operatively with local bands and non-native users to resolve local issues of conservation and other conflicts exclusive and inclusive of any fishing agreement	. attemps to minimize potential conflicts
. involve natives in fisheries management projects	. treats natives as equal partners in management; permits hands-on management, education, and appreciation for the resource; demonstrates native concern for the resource to non-natives
. encourage native involvement in aquaculture	. provides supplementary food fish and income to natives without stressing the resource
. work towards agreements with the native groups to avoid overt conflict with tourist operators, sports fishermen, and commercial fishermen	. promotes increased understanding of each others' perspectives

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
User Conflicts (Cont'd)	
Promote International Co-operation in the Management of Common Fish Stocks	
• encourage international representation on user group committee	• provides international perspective on resource related issues; promotes better understanding of the different perspectives; permits a more pro-active approach to problem resolution
• encourage at least annual meetings among fisheries agency staff	• promotes increased understanding of each others' perspectives and allows for co-operative management
• encourage common international approach to management of common fisheries resources on Great Lakes boundary waters	• will ultimately produce fewer user conflicts and result in more efficient enforcement of regulations and management of the common resource; less confusion over regulations among users
Increase Co-operation and Communication with other Government and Private Agencies	
• encourage communication between MNR and timber companies to improve timing and methods of timber harvesting and road construction	• result in less user conflict due to good planning; and also minimizes the impact on habitat reducing the need for costly rehabilitation
• work with Sea Lamprey Control to alleviate problems related to barriers and lampricide applications	• results in less user conflict and in greater production of fish for the angler
• continue to assist the Ministry of Environment with the contaminant monitoring programme	• provides current information to the angler
• continue co-operative efforts with the Great Lakes Fisheries Commission	• contribution to the long term improvement of fish habitat (i.e. Remedial Action Plan (RAP) programme)

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
User Conflicts (Con't)	
Increase Co-operation and Communication with other Government and Private Agencies (Cont'd)	
. increase habitat inventory efforts and site inspections, including compliance and effectiveness monitoring	. increases knowledge of critical habitat and increases MNR's ability to adequately protect that habitat, keeping it in fish production
Habitat Loss and/or Degradation	
Decrease Erosion, Siltation, and Habitat Loss	
. develop a streambank stabilization programme for private land agricultural areas in particular	. will address the problem of siltation at its source
. encourage streambank buffer areas on private land	. will attempt to prevent problems from ever happening
. encourage better dredge and fill practices as well as stream crossing practices	. these two sources of habitat degradation and loss are the most serious in the District and will be dealt with through education, site inspections, compliance and effectiveness monitoring and by strictly enforcing legislation
. encourage improved agricultural practices	. will be dealt with through education to prevent damage to riparian areas
. deter building on hazard land	. will attempt to minimize impact of hazard land development through education and support of other MNR policies
. discourage development affecting fish habitat	. use plan input and review as well as education and legislation to minimize the impact of development on fish habitat
. review of and input to development plans	. ensures that fisheries concerns are addressed
. implement fish habitat, tourism, access roads, and water crossing guidelines	. ensures that development has minimal impact on fisheries habitat
. implement no net loss of fisheries habitat regulation in the Fisheries Act	. ensures no net loss of fish habitat
. increase habitat related enforcement	. acts as a deterent

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
Habitat Loss and/or Degradation (Cont'd)	
Become More Involved in Wetland Conservation	
. initiate the wetland evaluation programme particularly for shoreline wetlands . develop an extension programme that includes wetland values	. will provide baseline data on important fish habitat necessary for protection of that habitat . will use education to instill the values of wetlands in the private landowners who control most of the wetland resource
Educate the Public with Respect to a Land Ethic	
. develop an extension programme that includes promotion of a land ethic, including fisheries habitat and legislation applicable for fish habitat	. will use education to promote long term resource stewardship
Encourage Decreased Industrial Contamination	
. support MOE in its efforts to regulate effluent and spills	. will ensure quality fish habitat for maximum production
Inadequate Fisheries Information	
Assessment of Present Populations	
. assess the forage base present in Goulais and Batchawana Bays of Lake Superior . determine the problem with lake trout in Ranger Lake and develop a strategy to deal with the problem	. will provide baseline data for evaluating stocking rates of top predators, particularly salmon and lake trout . will ultimately produce more and higher quality angling opportunities for the tourism and sports fishermen user groups

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
Inadequate Fisheries Information (Cont'd)	
Assessment of Present Populations (Cont'd)	
. collect lake specific harvest information and basic population data	. will form the basis for measuring target achievement and evaluating success of management perscriptions
. assess Great Lakes feeder streams for baseline data, potential areas for rehabilitation, and areas for possible species conversion	. will identify areas where management perscriptions can be used to increase angling opportunities
. determine where discrete fish stocks exist	. will permit more effective management for increased angling opportunities
. assess lakes for success of current or past stockings or the status of natural populations	. will identify waterbodies where present or past stocking has not produced desired results; will permit use of that stock in more suitable water bodies providing more angling opportunities
. assess lakes for potential to convert to another species (splake, rainbow trout, brown trout, walleye)	. will identify waterbodies where increased angling opportunities could be made available
. determine status of selected lake populations	. will identify problem areas in time to prevent loss of angling opportunities
. involve Algoma Fisheries Assessment Unit in an advisory role	. will make use of assessment unit expertice in planning as well as in making management decisions
Areas Requiring Specific Consideration	
. identify, inventory, and map spawning beds and other sensitive habitat from historical and present records as well as field inventory programmes	. will provide information necessary to make important resource related decisions aimed at habitat protection
. initiate new commercial baitfish programme	. will provide baseline information necessary for managing the commercial baitfish resource of the District

Table 3. Management strategies and tactics for the Sault Ste. Marie District (Cont'd).

Problem/Issue Strategy Tactic	Relationship of Tactic to Target Achievement
Inadequate Fisheries Information (Cont'd)	
Areas Requiring Specific Consideration (Cont'd)	
• continue monitoring of commercial food-fish harvest	• will reduce user-conflicts, maintain commercial fishery opportunities and sportfishing opportunities
• assess success/failure of implemented tactics	• will provide critical information for measuring success or failure of a tactic to achieve the desired target and for measuring how much of the target has been achieved
Experimental Management	
• investigate areas of incomplete knowledge through the use of carefully designed and controlled experimental programmes	• could lead to the development of more angling opportunities
Undesirable Species Introduction	
Educate User Groups	
• inform the public of the hazards of dumping live baitfish into waterbodies	• will minimize impact of undesirable species on trout; will help to maintain current trout angling opportunities
• inform the public of the possiblilities of transferring smelt to another body of water while cleaning the catch	• will minimize impact of undesirable species on trout; will help to maintain current trout angling opportunities

IMPLEMENTATION

GENERAL

The previous section presented the preferred management strategies and tactics in relation to the objectives and targets identified for the fisheries management programme. This section deals in more detail with the implementation of those strategies and tactics.

Implementation will be accomplished by a variety of means. A five year implementation schedule has been developed which identifies the specific tactics to be carried out each year from 1988 to 1992. This schedule will be updated on an annual basis and/or as circumstances and needs change.

Each year an annual work plan will be developed to identify specific projects and programmes for which funding will be sought through the Ministry's normal budgeting procedure. Additional projects will be identified, at this level, for funding through special fisheries programmes and other agencies.

District fisheries staff will continue to be involved in the planning and undertaking of other programmes, such as the timber management programme, within the Ministry. This involvement also occurs through Ministry participation in the planning and review of projects and development proposals of other government agencies and the private sector.

One of the most important means of implementation is through co-operative management programmes, such as the Community Fisheries Involvement Programme (CFIP), with clubs, associations, municipalities, and individuals.

IMPLEMENTATION PRIORITIES

During the course of development of this plan a number of issues were identified by Ministry fisheries staff, the

public and various user groups. The fisheries management programme must deal with these issues to be successful. This section presents a description of these issues and ideas.

Extension Programme

Development of an extension programme is seen by both the general public and Ministry staff as fundamental to the success of the fisheries management programme. As a result the Ministry has committed a proportion of the new fisheries licence dollars to the development of an extension programme in Sault Ste. Marie.

An extension and fish production biologist was hired in the fall of 1987 to co-ordinate and develop the programme. One of the first tasks of the new employee will be to develop a communications plan. The communications plan will:

- outline how the District will implement appropriate programmes into the school system
- become more pro-active with the media
- develop a higher MNR profile, particularly with respect to fisheries, through television and radio
- educate user groups through the use of workshops, publications, and participation in fairs and exhibitions
- direct non-Ministry management efforts through the effective use of the Community Fisheries Involvement Programme (CFIP)
- ensure continued contact by MNR with user groups
- help keep fishermen informed on an ongoing basis

Two of the main goals of the extension programme will be to inform the general public, as well as the various user groups, about stewardship of the fisheries resource and to ensure that MNR hears what user groups are saying. It will specifically address how resource users can help to minimize the impact of the various problems and issues facing the fisheries resource and assist the Ministry in reaching the desired targets by the year 2000.

Enforcement

Enforcement is a necessary and integral part of the fisheries management programme and although the public would like more Conservation Officers the Ministry will respond with a higher profile enforcement programme. The Ministry believes that with better planning the District enforcement programme can become more effective, develop a much higher profile, and take more advantage of the Deputy Conservation Officer (DCO) programme.

An enforcement plan will be developed for the District which will direct enforcement effort to those areas where it is needed most. These areas will include the commercial fishery (incidental catches, over quotas, area violations), the native fishery, and the sport fishery (too many lines, sanctuary violations, closed season violations, gear violations, overlimits, and snagging). Enforcement effort will pay particular attention to areas affected by new regulations resulting from the Fisheries Management Plan.

Commercial Food Fishing

Commercial food fishing has a long history in Ontario. It makes a significant contribution to Ontario's culture and economy. Importantly, the commercial fisheries provides a valuable food product to the many who enjoy fresh-water fish but are unable to angle their own. The commercial fishery has also made important contributions to our knowledge of fish stocks and their management. However, the commercial food fishing industry is at a cross-road.

Despite an effort to modernize the commercial fishery, over-quota harvest continues to be a problem in some areas both from a resource and a public perception standpoint. Incidental catch of non-target fish and the use of gill nets has been identified as a major concern of organized fishing groups such as the Ontario Federation of Anglers and Hunters.

Sport fishermen are moving onto waters that have traditionally been accessible only to the commercial fishermen in

pursuit of Great Lakes sport fish stocks and are also becoming more envolved in stocking sport fish, particularly salmon.

The industry, as a whole, must take on a greater role in the management of fish stocks. Already, many inshore areas have been lost to the commercial fishery and more areas stand to be lost if commercial fishermen do not make an obvious effort to work with sports fishermen to the benefit of the fisheries resource. Rehabilitation of lake trout will continue to be a priority in Eastern Lake Superior relative to the commercial fishery.

Compliance with minimum incidental catch and over-quota regulations will be strictly enforced and will be closely monitored. Co-operation by the industry will be expected in order to reduce the present level of conflict with other user groups. The Ministry recognizes and will deal with:

- whether or not there is a real problem with commercial fishing for walleye in the North Channel - lower St. Marys River area; if the Seine Island area is identified as a walleye spawning ground adjustments to the timing of fishing, walleye quotas, and/or fishing areas will be considered and implemented.
- the need to assess Lake Superior fish stocks now in order to have improved baseline data for the next planning period;
- the need for closer liaison with United States jurisdictions with respect to determining the status of walleye in boundary water areas;
- the need to assess the impact of salmon on the forage base and ultimately on re-establishing lake trout as the top predator in Lake Superior
- the need for lake trout spawning assessment and possibly adjustments to stocking methodology (ie: locations);
- the need for mutual education of commercial fishermen and other user groups to each other's interests and needs; commercial and sport users will be encouraged to develop acceptable resolutions on issues of conflict between the two groups.

- the need to adjust lake trout quotas especially with respect to the inshore fishery.

The Ministry will deal with these needs through the District's enforcement, extension, and assessment programmes. The District will also represent commercial fishing interests in proposed meetings with the State of Michigan and will ensure commercial fishermen representation on a standing user group committee for the Sault Ste. Marie District.

Commercial Baitfish

The Sault Ste. Marie District has a shortage of detailed information about commercial baitfish. Accordingly the District will develop and implement new guidelines to ensure that information is available to make sound decisions about baitfish management.

Implementation of these guidelines will make enforcement of baitfish regulations more efficient and will give baitfish managers sound data on which to base management decisions. It will also give the Ministry a means of assessing the success of the management programme in relation to the baitfish targets and should produce opportunities for expansion of the commercial baitfish industry in the District with a minimum of conflict with other resource users.

The information returned as a condition of licence will be summarized in an annual report which will be made available to all commercial baitfish dealers.

The Ministry also recognizes the need for assessment of baitfish populations and the potential need for baitfish sanctuaries. The information collected from baitfish dealers will be used to ensure an equitable distribution of harvesting effort.

Native Subsistance Fishing and Co-operative Management

The Robinson-Huron and Robinson-Superior Treaties ascribe to Indians of these treaties certain rights with respect to

fishing. As a result, Indians continue to fish in specific locations, taking what is perceived to be significant amounts of fish, which may constitute a significant portion of the resource available to all users of the fisheries resource. This is a statement as to the state of the native fisheries and is not a judgement nor a statement of allocation.

Our courts have held that Indians are subject to federal laws, in particular the Federal Fisheries Act. However, the Ontario Government's present policy permits treaty Indians to take fish for personal consumption, while on their treaty area, in a manner that does not constitute a conservation threat to the fish species being taken. This does not include permission for sale or barter of fish without the benefit of a commercial fishing licence.

It is the intent of the Sault Ste. Marie District to respect the treaties, follow direction from the courts, and to implement Provincial policy; at the same time the District will encourage sound conservation practices in native users of the resource and encourage native participation in management of the resource.

Diversified Sport Fishery

One of the most important aspects of the fisheries resource in the Sault Ste. Marie District expressed in the public review process was its diversity. This was mentioned as a very important aspect of the fishery by all user groups. One of the goals of the fisheries management programme will be to improve the diversity of the fishery.

The fisheries management programme will attempt to maintain an existing, quality fishery through the designation of a high quality fishing area, trophy lakes, fly-fishing only rivers, the improvement of the existing stocking programme for brook and lake trout and the establishment of a circle route. The use of catch and release techniques, particularly in the high quality fishing area, trophy lakes, fly-fishing only rivers, and high intensity day use area will be promoted.

The programme will attempt to improve the quality and diversity of the fishery by creating a high intensity day use area near the city of Sault Ste. Marie, protecting potential tourism lakes, expanding the present stocking system, encouraging more public participation in the CFIP programme, habitat protection and rehabitation, experimental management projects, and creating easier access.

Some of these programmes are discussed in more detail below.

High Quality Fishing Area

A high quality fishing area is an area that produces a high catch per unit of fishing effort. The northeastern corner of the Sault Ste. Marie District has a brook trout fishery able to provide this type of opportunity. Over the next seven to eight year period, timber harvesting operations will be moving into this area. In order to protect and enhance the high quality aspect of this fishery it is proposed to introduce a split season for brook trout and lake trout (February 15 to March 15 and the third Saturday in May to September 30); prohibit the use of baitfish; and introduce a reduced limit of five trout, no more than two of which can be lake trout in five townships: Schembri, Scriven, Bracci, Wlasy, and Way-White.

Tupper Township, nearer to Sault Ste. Marie, also has the capability to produce high quality angling opportunities, and will also be managed with a split season (February 15 to March 15 and the third Saturday in May to September 30) for brook trout and lake trout, a ban on the use of baitfish and the reduced trout limit. The walleye limit will also be reduced, from six to three fish per day per angler, and Belleau Lake will have a five year sanctuary in order to permit the establishment of a new walleye population.

The loss of fishing opportunities in these areas will be compensated for by the maintenance of a high catch per unit effort and by an increase in fishing opportunities in the high intensity day use area, closer to Sault Ste. Marie, and Batchawana Bay where stocking will be increased.

Assessment of this tactic, particularly in the Tupper Township area, will be given priority over the next five years.

Trophy Lakes and Fly-Fishing Only Rivers

The opportunity to catch trophy sized (large) fish is an important part of a diversified fishery. It also represents an opportunity that is becoming increasingly rare. One brook trout and two lake trout lakes that are known to produce large fish will be set aside as trophy fisheries. These lakes will have a split season (February 15 to March 15 and third Saturday in May to September 30) and a reduced creel limit. Only two brook trout and two lake trout will be permitted, only one brook trout and one lake trout may be 40 cm (16 in) or greater. The three lakes suggested for this tactic are listed in Table 5. Lake surveys may identify other lakes suitable for this tactic.

In addition to the establishment of trophy lakes, two sections of river fisheries will be designated as fly-fishing only areas. These areas are consistent with the production of a diversified and high quality angling experience in the Sault Ste. Marie District and include portions of the East Goulais and Garden Rivers. The exact areas are shown on Map 3.

A portion of the Batchawana River will be considered for this tactic in the next five year implementation period (1993-97) should this tactic prove successful on the East Goulais and Garden Rivers. If access to the upper Batchawana River changes as a result of timber harvesting activities this tactic could be implemented sooner.

High Intensity Day Use Area

This area is intended to produce a fishery with a high catch per unit effort that will cater to users with a wide variety of angling experience. Its main feature is that it could potentially be easily and quickly accessed. The area will be maintained by an intensive stocking programme for brook trout and lake

trout, and would eventually be expanded to include F1 splake and rainbow trout. The area will be primarily located in Aweres and Jarvis Townships, but waters in adjoining townships, close to the city of Sault Ste. Marie, will also be included, as well as lakes in close proximity to the Highway 17 corridor.

Circle Route

The District stocking programme will be used to supplement natural populations and produce a high quality diversified fishery along a road network leaving and returning to Sault Ste. Marie. The route would follow Highway 17 east to Highway 129 north to the Ranger Lake Road (Highway 556) and return to Sault Ste. Marie by Highway 17. Selected lakes and streams along the route will be identified and will provide angling opportunities for brook trout, lake trout, F1 splake, walleye, pike, and other species. The Blind River District will co-operate in this effort by providing similar opportunities along their portion of the route. This tactic will be developed and promoted through the extension programme. Development of the circle route will include safety, parking, and road maintenance as funding permits.

Tourism

Tourism is a very important component of the economy of the Sault Ste. Marie District; however, there is a limited number of lakes suitable for tourism opportunities offering high quality, remote angling experiences. Although roads are relatively close to some of these lakes, the Ministry will continue to consider their tourism value in timber management and other resource plans, as well as in this fisheries management plan.

Table 5 lists lakes for which individual lake strategies will be considered, for the protection of fishing quality in order to maintain and enhance the tourism value. Strategies to be considered, singularly or in combination, include winter closure, reduced trout limits, split season, trophy lake status, baitfish restrictions,

and access restrictions. These strategies will be developed in consultation with the public and the tourism industry.

A number of tactics previously discussed will be important in supporting the tourist industry. These include the high quality area, the trophy lakes and fly-fishing only areas, the circle route, the high intensity day use area, and expanded stocking programme.

Volunteer Creel Census Programme

Given the high cost of conducting regular creel censuses it is unrealistic to consider carrying out many Ministry operated creel surveys. Periodic creels will occur on Bone Lake and Ranger Lake to continue to update an existing data base and the Algoma Fisheries Assessment Unit will continue to periodically creel its lakes within the Sault Ste. Marie District (Sill, Saddle, Megisan, Gong, and Goulais Lakes). In addition there will be periodic creels done on the St. Marys River and Batchawana Bay by the MNR through special employment projects or co-operative projects with other groups.

As part of the District's extension programme tourist operators and charter boat operators will be encouraged to fill out creel survey forms for their guests. This will provide an index and trend-through-time baseline data for individual lakes and will represent an important contribution to the management programme.

Sport anglers, particularly members of the Sault and District Anglers Association, Algoma Rod and Gun Club , and the St. Joseph Island Anglers and Hunters Association, will also be encouraged to keep track of angling effort and harvest.

Access Points

There is a shortage of boat launch facilities along the Great Lakes shoreline in the Sault Ste. Marie District. An ad hoc group consisting of representatives from MNR, the Economic Development Corporation (EDC) and SFDP of the City of Sault Ste. Marie, and the SDAA has been formed to suggest boat launch facility needs for the District. The EDC will spearhead the search for funding and

co-ordinate the development of the chosen sites. Currently the ad hoc group has identified the priorities (facilities at Gitchee Gumee Marina, Harmony Bay, Batchawana Bay, Goulais Bay, Gros Cap, and Mamainse Harbour) and has identified and priority ranked new sites for development (Pancake Bay and the south shore of Goulais Bay).

The Lake Huron shoreline also needs to be assessed by the ad hoc committee. It should give consideration to upgrading facilities at Echo Bay, Desbarats, and Bruce Mines. It should also investigate the need for new facilities along the south shore of St. Joseph Island as well as the north shore of the Lower St. Marys River and the North Channel of Lake Huron.

Upgrading the roads into Northland and Legge Lakes as well as the road into the Two-Horse Lake area is required to improve access for high intensity day-use and circle route users. Parking, safety, and access quality must also be addressed.

Public access points for other inland lakes will also be considered. These lakes would include Gordon, Meredith, Iron, Round, and Edith Lakes east of Sault Ste. Marie. This study will be incorporated into the annual work schedule as funding permits.

Batchawana Bay

The fishery in Batchawana Bay has several problems that need to be addressed, including overexploitation of lake trout, the decline of walleye and rainbow trout, and the perceived decline of perch populations. There is a public demand for stocking of chinook salmon, brown trout, and rainbow trout. Although extensive data on the Bay's forage base is not available, it is believed to be sufficient to support stocking of salmon (150,000 chinook per year) and lake trout (100,000 per year).

These problems will be addressed in a number of ways including increased stocking of lake trout in Batchawana Bay; closure of some rainbow trout streams to protect spawning fish (see Table 5); the encouragement of CFIP projects geared to the production and stocking of walleye; forage base assessment; the inclusion of Batchawana Bay interest group representatives on a standing District

user group committee; and by meetings with Batchawana Bay user groups. Other factors such as perch limits; aquatic vegetation rehabilitation; and stocking of chinook salmon, brown trout, and rainbow trout will be considered in conjunction with assessment projects and the direction of the Lake Superior Strategic Fisheries Plan.

Salmon Stocking in Lake Superior

The issue of salmon stocking in Lake Superior will be dealt with by the Lake Superior Fisheries Management Committee. It is through this group that quidelines for stocking will be developed.

Chippewa Falls

The idea of building a fish ladder at Chippewa Falls on the Chippewa River has circulated for some time. It is currently being suggested as part of a major tourist development at the Chippewa Falls site.

Although the Ministry is not opposed to a tourism development at the site, it is opposed to the construction of a fish ladder. The Ministry is opposed to the fish ladder because it does not want to jeopardize the resident brook trout population, it does not want salmon to have access to the upper river, it believes that the reasons given for the fish ladder can be better accomplished by other means, and it is concerned about the aesthetics of the site.

The Ministry's preferred option is to develop new spawning channels for rainbow trout and salmon downstream from Chippewa Falls. As part of the tourism infrastructure, interpretive facilities could be developed at the site of the spawning channels which could be used much more effectively than a fish ladder. This would also leave the upper Chippewa River for brook trout enhancement. Techniques for enhancing downstream spawning facilities will be evaluated.

During the public information exchanges for the fisheries management plan a questionnaire dealing with the Chippewa Falls proposal was made available to participants. Completed questionnaires are on file in the Sault Ste. Marie District office.

Thirty-two of 35 respondents favoured development at Chippewa Falls. Some form of tourism development was favoured by 27 respondents, 30 were in favour of spawning bed enhancement below the falls, and 23 were in favour of a fish ladder over Chippewa Falls.

St. Marys River

The St. Marys River represents a rather unique fisheries resource, the management of which is complicated by its international aspect. The Ministry intends to work closely with both the Michigan Deparment of Natural Resources (MDNR), (regular meetings will be held at least annually) and the St. Marys River International Sport Fishing Commission. The Ministry will continue to co-operate with the City of Sault Ste. Marie and encourage its management efforts including its municipal hatchery and stocking programme. The Ministry will also encourage representation from these three bodies on the standing user group committee which will act as a forum to discuss management proposals, issues, and problems.

The Ministry will continue to carry out remedial action in the St. Marys River rapids by installing a debris screen over the intake pipe that provides supplementary water to Whitefish Creek, by making Whitefish Creek a sanctuary, by carrying out spawning bed improvements in the rapid area, and by maintaining diversity in the St. Marys River fishery.

Ministry staff will discuss current regulations and practices with MDNR staff in an effort to see if a common approach can be taken.

The Ministry is in the process of developing a solution to the snagging and safety problems at the Great Lakes Power tailrace in conjunction with Great Lakes Power, Parks Canada, Sea Lamprey Control, the City of Sault Ste. Marie, and the SDAA. The Ministry will also encourage the development of fishing platforms on the St. Marys River, with emphasis on facilities for handicapped, young and elderly anglers, and viewers.

Great Lakes Power Tailrace

For a number of years snagging of fish, particularly pink salmon, safety, litter, and vandalism have been severe problems at the Great Lakes Power tailrace. There has been considerable public concern expressed toward addressing the situation. Meetings have been held with a number of user groups to examine various solutions to the problem. These solutions were included in a questionnaire that was made available to participants at the public information exchanges held as part of the fisheries management planning process. Twenty-five of the 30 people who returned questionnaires believed that snagging is a problem and needs to be addressed. Increased enforcement effort is seen by 20 of the respondents as the most favourable means of dealing with the problem; although seven also suggested that physical barriers and gear restrictions should also be used to solve the problem.

The issues here will be dealt with in a number of ways. The City of Sault Ste. Marie, Great Lakes Power, Parks Canada, Sea Lamprey Control, the SDAA, Charter Boat Association, and the MNR will co-operate in an education and communication programme aimed at anglers; the MNR will increase the enforcement effort; and Great Lakes Power will put signs on the barrier to discourage angling from these unsafe positions. Further action, including possible closure of the tailrace to angling or angling equipment restrictions, will be taken if the problem of snagging does not improve significantly with the proposed remedial action.

Habitat Loss and/or Degradation

Habitat is being affected in a number of ways within the Sault Ste. Marie District. Background pollution, such as heavy metals (i.e. mercury), has been identified in a number of lakes; there is a varying degree of sensitivity to acid precipitation throughout the District with the most sensitive lakes occuring in the northern half; the St. Marys River has a heavy load of industrial pollutants and sediment and has been identified as a site for

rehabilitation by the International Joint Commission; the impact of aggregate dredging is an unknown. Many streams in the urban setting are subject to diversions, channelization, and large inputs of garbage. Timber harvesting operations have resulted in localized habitat degradation and certainly represent a potential source of more problems. Shoreline wetland loss along the St. Marys River and North Channel is another major concern because of their importance as spawning and nursery habitat.

The MNR will continue to assist the Ministry of Environment with the monitoring of pollutants in fish, and evaluating acid precipitation sensitivity. MNR will continue to support the International Joint Commission in its efforts to rehabilitate the St. Marys River and the Ministry of Environment in its effort to control industrial pollutants and sediments.

The Ministry will encourage the rehabilitation of urban streams through volunteer programs, CFIP projects, and by other agencies, such as the City of Sault Ste. Marie and the Sault Ste. Marie Region Conservation Authority.

The Ministry will strive to improve its ability to protect habitat from timber harvesting through implementation of Timber Management Guidelines for the Protection of Fish Habitat which includes more site inspections, compliance monitoring, and effectiveness monitoring. Guidelines for the protection of tourism values and the Environmental Guidelines for Access Roads and Water Crossings will also be implemented.

The loss of shoreline wetlands is very detrimental to walleye, northern pike, and forage fish production in particular, especially in the St. Marys River-North Channel area of the District. The Ministry will continue to oppose the loss of critical fisheries habitat and will implement the 'no net loss of fisheries habitat' regulation in the Fisheries Act. Increased habitat related enforcement will be an integral part of this programme. A wetlands education programme will be developed as part of new extension programme planned for the District.

Community Fisheries Involvement Programme (CFIP)

The future role of CFIP in fisheries management is currently under review and changes may occur which will affect future strategies and tactics.

It is anticipated that CFIP will play an important role in the Sault Ste. Marie District in rehabilitating walleye stocks, particularly in Batchawana Bay, Goulais River, Echo River, and the Bar River.

User Surveys, Lake Surveys, and Assessment

User or creel surveys will be used to assess the success of new management initiatives, identify potential problems before they become serious, measure user attitudes, and to provide a measure of target attainment. Areas which will receive the highest priority for user surveys will be the St. Marys River, Batchawana Bay, Bone Lake, Ranger Lake, trophy brook and lake trout lakes, fly-fishing only streams, and the inland walleye lakes east of Sault Ste. Marie. Participation by sports fishermen and the tourist industry will be encouraged and District wide aerial angler surveys will be conducted on a periodic basis.

Lake surveys will be conducted on a number of lakes (Table 5) in the District to determine basic information on brook and lake trout lakes, identify lakes with tourism potential, identify lakes with baitfish potential, and to identify lakes with the potential for species conversion or stocking. Stream surveys will be conducted primarily on streams and rivers that are tributaries of Lakes Superior and Huron (including the St. Marys River area).

A lake and stream assessment programme will be carried out to determine the success of new and existing stockings, to determine the effect of new regulations on fish populations, to determine the impact of sport angling as well as commercial fishing on selected fish populations, to identify waterbodies suitable for species conversion, to identify fish stocks and fish stocks requiring rehabilitation, and to assess the forage base in selected waters of

Lake Superior. The results of the assessment programme will be used to identify areas where angling opportunities can be increased or to recommend management tactics which will ultimately increase angling opportunities. In this sense, angling opportunities include commercial fishing opportunities where appropriate.

Catch and Release

The idea of catch and release is not new and is thought to be practiced by many anglers. This is particularly true in the fly-fishing fraternity.

Rather than legislate catch and release areas now we are planning to encourage catch and release and develop an awareness of techniques through our extension programme. We will re-evaluate the catch and release technique for our next five year operating plan that will start in 1993.

FIVE YEAR IMPLEMENTATION SCHEDULE

The details of the first five year implementation schedule and the various water bodies where the different tactics will be carried out are presented in Table 5.

Implementation priority is also indicated. Basically there are four levels of priority within three categories. Tactics requiring additional funding are indicated by "A"; tactics that can be accomplished at existing funding level are indicated by "B"; and those tactics to be carried out through CFIP are indicated by "C".

Generally speaking those tactics that will provide more fishing opportunities, improved fishing opportunities, enforcement of new regulations and habitat protection guidelines, and parts of the extension programme have been given the highest priority. In some cases assessment and survey work is given a higher priority than the creation of more fishing opportunities because the assessment and survey work is a prerequisite to producing those fishing opportunities.

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992.

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Exploitation				
• designate areas as year round fish sanctuaries	B1	• legislation in place by 1990 (takes two years for changes to the Fisheries Act)	• Whitefish Creek • Icewater Creek	• Whitefish Island • Laverendrye
• close rainbow trout season on most Lake Superior tributary streams	B1	• legislation in place by 1990, closes rivers and creeks considered to be non-fishable	• All Lake Superior tributaries except: Alona Creek Black Creek Pancake River Gimlet Creek Carp River Batchawana River Kerwin Creek Chippewa River East Chippewa River Harmony/Jones Ck Stokely Creek Goulais River Robertson Creek Achigan Creek Big Carp River Little Carp River	 • Slater • Pancake Provincial Park/Ryan • Herrick/Ryan • Herrick • Fisher/Palmer • Fisher/Palmer • Fisher • Tilley/Brule' • Archibald/Marne/ Grenoble • Havilland/Tupper • Havilland/Fenwick • Fenwick/Van Koughnet/ Deroche/Hodgins/ Gaudette • Van Koughnet • Hodgins/Gaudette/ Shields • Awenge/Parke/Prince • Awenge/Prince/Korah

B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Exploitation (Cont'd)				
. protect remnant walleye population in Goulais River	B1	. develop an individual river plan to protect remnant walleye population necessary for rehabilitation	. Goulais River	. Fenwick/Van Koughnet/ Deroche/Hodgins/ Gaudette
. develop a trophy fishery for lake and brook trout	B1	. three lakes will be designated in the legislation by 1990 (first lake for brook trout, last two for lake trout)	. McGovern Lake . Pancake Lake . Gong Lake	. Olsen . Kincaid . Olsen
. develop fly-fishing only areas for riverine brook trout	B1	. sections of two rivers to be designated as fly-fishing only will be designated in the legislation by 1990	. Garden River (Ranger Lake to Garden Lake) . East Branch of Goulais River (Laughing Lake to the Goulais River)	
		. section of third river to be designated as fly-fishing only should access be improved before 1993	. Batchawana River (St. Clair River to the ACR tracks)	
. develop a high quality brook trout fishery through reduced limits, split seasons, and baitfish restrictions in six townships	B1	. the waters of six townships will be designated in the legislation by 1990	. all waters . all waters . all waters . all waters . all waters . all waters	. Schembri . Scriven . Way - White . Wlasy . Bracci . Tupper

B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Exploitation (Cont'd)				
• encourage the upgrading of existing facilities and the initiation of design studies and construction of new access points for the Great Lakes shoreline	A4	• ad hoc committee has studied the situation; design/construction of facilities to follow as funds permit	.. **Existing Priorities** • Gitchee Gumee Marina/ Havilland Bay • Goulais Mission/ Goulais Bay • Gros Cap • Mamainse Harbour • Harmony Bay • Batchawana Bay .. **New Priorities** • Pancake Bay • Goulais Bay/South Shore	
• encourage aquaculture of commercial fish food	C2	• will be emphasized in the extension programme beginning in 1988		
• promote catch and release techniques	B2	• will be emphasized in the extension programme beginning in 1988		
• more effective enforcement through the development and implementation of a District enforcement plan	A1	• ongoing but plan will be developed and implemented beginning in 1989		
• evaluate stocking efforts for success	A1	• ongoing programme to receive more emphasis		

A - additional funding required; B - can be accomplished at existing funding level; C - CFIP funds

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Exploitation (Cont'd)				
• improve present stocking methods by making use of annual plantings in high use areas, two or three year rotations in medium quality areas, and occasional plantings in other areas	B1	• will be implemented starting in 1988; stocking schedule presented in Appendix II		
• develop and maintain a variety of high use fishing opportunities via a high intensity day-use area and a circle route	A2	• stocking and promotion of high intensity day-use area and circle route to start in 1988; surveying of lakes and assessment of stocking potential is ongoing and will continue through 1992	• selected waters • selected waters	• Jarvis • Aweres • Meredith • Aberdeen Additional
• stock splake, rainbow trout and brown trout on put-delayed-take basis in the intensive use areas as well as other selected waters of the District	A2	• this programme is ongoing for splake and rainbow trout, but will be expanded starting in 1988 and will include brown trout by 1990	•• **Splake** • Upper Island Lake • Crystal Lake • Pauquette Lake • Lake 27 • Camp 12 Lake • Strawberry Lake • Vixen Lake • Tower Lake • Hart Lake • Pipe Lake	 • Jarvis • Aweres • Whitman • Olsen • Reilly • Reilly • Daumont • Aberdeen • Aberdeen • Nicolet

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Exploitation (Cont'd)				
			.. **Rainbow Trout**	
			. Raffel Lake	. Menard
			. Robertson Lake	. Van Konghnet
			. Edith Lake	. Meredith
			.. **Brown Trout Brood Stock Lakes**	
			. Lake #3	. Smilsky
			. Lake #4	. Smilsky
			. Lake #11	. Smilsky
	B4	. the Ministry will permit stocking of brown trout and rainbow trout <u>after 1989</u>	.. **Brown Trout**	
			. Boat Lake	. Whitman
			. Goulais Bay	. Lake Superior
			. Lower Island Lake	. Awares
			. Heyden Lake	. Awares
			. St. Marys River	. Lake Huron
			. Root River	. Tarentorous
			. Little Carp River	. Korah
			. Big Carp River	. Korah
			.. **Rainbow Trout**	
			. Batchawana Bay	. Lake Superior
			. Goulais Bay	. Lake Superior
			. St. Marys River	. Lakes Superior/ Huron
. introduce walleye on rehabilitated spawning grounds	C1	. ongoing programme to continue <u>through 1992</u> as sites are identified, evaluated, and rehabilitated		

B - can be accomplished at existing funding level; C - CFIP funds

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Exploitation (Cont'd)				
. introduce walleye to new waters	A1	. ongoing programme, begun 1987, will continue using adult transfers	. Belleau Lake . One Horse Lake . Pants Lake . Heyden Lake . Twin Lakes . Diamond Lake	. Tupper . Chesley Additional . Aweres . Aweres . Hilton . Johnson
. stock lakes which have been damaged by undesirable species (perch, rock bass, and smelt) with walleye or smallmouth bass	A3	. lake surveys starting in 1988 will identify candidate waters; adult transfers will be considered in annual work plans for the year after identification	.. **Smallmouth Bass** . Adelaide Lake .. **Walleye** . Crystal Lake . Haversack Lake	. Olsen . Aweres . Meredith
. encourage stocking of walleye in Batchawana and Goulais Bays through CFIP projects	C2	. ongoing programme but will receive much greater emphasis under the extension programme starting in 1988	. Batchawana Bay . Goulais Bay	. Lake Superior . Lake Superior
. encourage pond culture for walleye CFIP projects	A4 & C1	. will receive emphasis through the extension programme starting in 1988	. selected waters . selected waters	. Lake Superior . Lake Huron

A - additional funding required; C - CFIP funds

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Exploitation (Cont'd)				
• stock lake trout in Batchawana Bay	B1	• ongoing programme, see Appendix V for details	• Batchawana Bay	• Lake Superior
• rehabilitate spawning grounds	A1	• ongoing programme; will receive greater emphasis in 1988 and through 1992 as the need arises and funds permit	• St. Marys Rapids • Bar River	• St. Marys River • Bar River
• increase Bar River walleye sanctuary and designate other sanctuaries	B1	• legislation in place by 1990 (takes two years for changes to Fisheries Act)	• Bar River • Icewater Creek • Whitefish Creek • Goulais River	• MacDonald • LaVerendrye • Whitefish Island • Fenwick/VanKoughnet/ Deroche/Hodgins/ Gaudette
• remove barriers or offer alternatives to spawning run impasses	A3	• possibility exists for a project in 1988, to be reviewed annually and implemented as needed	• Echo River	• Kehoe and Chelsey Additional
• prevent habitat degradation through more rigid enforcement of the Fisheries Act and the Lakes and Rivers Improvement Act	B1	• ongoing programme; will receive greater emphasis in 1988 and through 1992	• All waters	• District wide
• identify potential sites for the creation of new spawning sites	A3	• these will be developed as they are identified and as funds permit; ongoing 1988 through 1992	• Little Carp River	• Awenge/Korah/ Prince

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Exploitation (Cont'd)				
. encourage the development of an angling methodology programme (e.g. Fish On! type videos)	A4	. will be emphasized in the extension programme starting in 1988 and will continue through 1992		
. advertise and educate anglers in the enjoyment value of angling for under-used species	B3	. will be emphasized in the extension programme starting in 1988 and will continue through 1992		
. direct tourist operators towards this under-used portion of the resource	B2	. will be emphasized in the extension programme starting in 1988 and will continue through 1992		
. encourage the development of pamphlets on how to catch, clean, and prepare, as well as where to catch commonly under-used species	A2	. will be emphasized in the extension programme starting in 1988 and will continue through 1992		
Problem/Issue: Public Awareness and User Perceptions				
. pro-actively liaise with the media	B1	. ongoing programme; but, will receive much greater emphasis and co-ordination as part of the extension programme in 1988		

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Public Awareness and User Perceptions (Cont'd)				
• increase television exposure	B1	• will be emphasized by and co-ordinated through the extension programme starting in 1988, will continue through 1992		
• hold public seminars	B1	• will be developed and co-ordinated through the extension programme starting in 1988, will continue through 1992		
• develop mutual native and non-native awareness	B1	• will be developed and co-ordinated through the extension programme starting in 1988, will continue through 1992		
• promote the various initiatives of the District Fisheries Management Plan (DFMP) - e.g. circle route, high quality area, high intensity day-use area, trophy lakes, fly-fishing only area	B1	• these initiatives will be promoted through the extension programme on an ongoing basis starting as they are brough on stream, 1988-1992		

B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Public Awareness and User Perceptions (Cont'd)				
. form a permanent user group committee to discuss related problems	B1	. this committee should be formed and on stream by late 1987 and will continue to meet on a regular basis through 1992		
. encourage more public involvement in CFIP	B1	. passively ongoing; but, will receive greater emphasis as part of the extension programms starting in 1988 and continuing through 1992		
. encourage the Algoma Central Railway to assist with the management of waters withing their landholdings	B3	. discussions will be initiated in 1988	. selected waters . selected waters . selected waters . selected waters . selected waters	. Tolmonen . Tronsen . Vibert . Davieau . Desbiens
. educate co-managers with respect to proper resource management	B2	. ongoing programme; but, will receive much greater emphasis and more co-ordination through the extension programme starting in 1988 and continuing through 1992		
. expand fish culture viewing facilities to accommodate tourists	B4	. improved facilities are currently being built into the new tarentorous Fish Culture Station as well as the new municipal hatchery		

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Public Awareness and User Perceptions (Cont'd)				
• publicize viewing areas	B3	• will be part of the extension programme starting in 1988		
• provide viewing opportunities at salmonid spawning run locations	C2	• viewing facilities will be developed as required, no specific plans exist at present; CFIP would be the preferred mechanism		
Problem/Issue: User Conflicts				
• hold regular meetings between user groups to discuss problems and/or specific issues	B1	• ongoing policy, will continue through 1992		
• educate user groups	B1	• ongoing programme that would receive much greater emphasis as part of the extension programme starting in 1988 and continuing through 1992		
• allocate fish resource between commercial and sport users	B4	• used only as a last resort for conflict resolution		
• encourage commercial fishermen to adjust the timing and method of harvest	B2	• stocks will continue to be managed through quotas	• Lake Superior • North Channel	

A - additional funding required; B - can be accomplished at existing funding level; C - CFIP funds

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: User Conflicts (Cont'd)				
• encourage commercial and sport users to develop acceptable resolutions to issues of conflict	B1	• compromises must be acceptable to MNR		
• protect high quality fishing in tourism outpost lakes; to be done with public input	B1	• develop individual lake strategies directed to protect fishing quality and enhance tourism through public consultation by 1992	• Goulais Lake • Affleck Lake • Gord Lake • Megisan Lake • Forester Lake • Watson Lake • Patter Lake • Ragged Lake • Lodestone Lake • Lake 24 • Adelaide Lake • Mamainse Lake • Penelope Lake • Dyson Lake* • Snyder Lake* • Hodgson Lake* • Spike Lake • Gong Lake* • Pancake Lake*	• Butcher • Carton • Carton • Carton • Gapp • Gapp • Gaudry • Gaudry • Handleman • Lunkie • Olsen • Ryan • Snow • Wlasy • Wlasy • Wlasy • Snow • Handleman • Kincaid
• encourage the development of a native conservation officer	A4	• will encourage this to take place before 1992		

A - additional funding required; B - can be accomplished at existing funding level
* - these lakes have already been offered some form of protection through previously listed tactics (page 47)

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: User Conflicts (Cont'd)				
• actively discourage fish buyers from purchasing fish from unlicenced fishermen through regular enforcement programme	B1	• ongoing programme; but, will receive more emphasis as a result of enforcement plan to be implemented in 1988 and continue through 1992		
• encourage natives to purchase a sufficient commercial fish quota	B1	• negotiations are ongoing		
• permit natives to take a reasonable amount of fish for food without jeopardizing the stability of the fishery	B1	• ongoing policy		
• discourage the unlicenced sale and barter of fish	B1	• ongoing; but, will receive greater emphasis starting in 1988 and continuing through 1992		
• include native representatives on the permanent user group committee	B1	• will be accomplished in 1987 and will continue through 1992		
• work co-operatively with local bands and non-native users to resolve local issues of conservation and other conflicts	B1	• will occur as needed starting in 1988 and continuing through 1992		

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: User Conflicts (Cont'd)				
. involve natives in fisheries management projects	C1	. will encourage this to start in 1988 and continue through 1992 using any available funding sources		
. encourage native involvement in an aquaculture project	C4	. will encourage this to happen by 1992		
. work towards agreements with the native groups to avoid overt conflict with tourist operators, sports fishermen, and commercial fishermen	B1	. will encourage this to happen by 1992		
. encourage international representation on user group committee	B1	. will be accomplished in 1987 and will continue through 1992		
. encourage at least annual meetings among fisheries agency staff	B1	. will be accomplished in 1987 and will continue through 1992		
. encourage a common international approach to management of common fisheries resources	B1	. will initiate discussions in 1987 and will continue as needed through 1992		
. encourage communication between MNR and timber companies to improve timing and methods of timber harvesting	B1	. ongoing programme; but, will receive much greater emphasis starting in 1987 and continuing through 1992		

A - additional funding required; B - can be accomplished at existing funding level; C - CFIP funds

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: User Conflicts (Cont'd)				
• work with Sea Lamprey Control to alleviate problems related to barriers and lampricide applications	B2	• ongoing programme; but will receive much greater emphasis starting in 1987 and continuing through 1992		
• continue to assist the Ministry of Environment with the contaminant monitoring programme	A4	• ongoing programme that will continue through 1992		
• continue co-operative efforts with the Great Lakes Fisheries Commission	A4	• ongoing programme that will continue through 1992		
• increase habitat inventory efforts and site inspections, including compliance and effectiveness monitoring	A1	• ongoing programme; but, will receive much greater emphasis starting in 1987 and will continue to be a priority programme through 1992		
Problem/Issue: Habitat Loss and/or Degradation				
• develop a streambank stabilization programme for private land agricultural areas in particular	A3	• ongoing; but, will receive greater emphasis in the extension programme starting in 1989 and continuing through 1992		

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Habitat Loss and/or Degradation (Cont'd)				
• encourage streambank buffer areas on private land	B3	• ongoing; but, will receive greater emphasis in the extension programme starting in 1989 and continuing through 1992		
• encourage better dredge and fill practices as well as stream crossing practices	B1	• ongoing programme; but, will receive much greater emphasis starting in 1987 and will continue to be a priority programme through 1992		
• encourage improved agriculture practices	A3	• ongoing; but, will receive more emphasis in the extension programme starting in 1989 and continuing through 1992		
• deter building on hazard land	B4	• ongoing programme to continue through 1992		
• discourage development affecting fish habitat	B1	• ongoing programme; but, will receive more emphasis starting in 1987 and continuing through 1992		
• review of and input to development plans	B1	• ongoing programme to continue through 1992		
• implement fish habitat, tourism, access roads and water crossing	B1	• ongoing programme to receive greater emphasis starting in 1988		

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Habitat Loss and/or Degradation (Cont'd)				
• implement 'no net loss of fisheries habitat' regulation in the Fisheries Act quidelines	B1	• ongoing, but will receive greater emphasis starting in 1988		
• increase habitat related enforcement	B1	• ongoing, but will receive greater emphasis starting in 1988		
• initiate the wetland evaluation programme, particularly for shore-line wetlands	A1	• will have the wetlands evaluation course for MNR staff in 1988 and will evaluate wetlands as funds permit		
• develop an extension programme that includes wetland values	B2	• will be developed as part of the extension programme's communication plan for imple-mentaion in 1989		
• develop an extension programme that includes promotion of a land ethic, including fisheries hatitat and legislation applicable to fish habitat	B2	• will be developed as part of the extension programme's communication plan for imple-mentation in 1989		
• support MOE in its efforts to regulate effluent and spills	A4	• ongoing programme, will continue through 1992		

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Inadequate Fisheries Information (Cont'd)				
Problem/Issue: Inadequate Fisheries Information				
. assess the forage base present in Goulais and Batchawana Bays of Lake Superior	A1	. project started in Batchawana Bay in 1987 and is expected to continue through 1990	. Batchawana Bay . Goulais Bay	. Lake Superior . Lake Superior
. determine the problem with lake trout in Ranger Lake and develop a strategy to deal with the problem	B1	. develop an individual lake strategy, with public consultation, by 1990	. Ranger Lake	. Reilly
. collect lake specific harvest information and basic population data	A3	. volunteer creels in general and on tourist lakes as well as MNR creels and user surveys to start in 1988 and continue through 1992	. Batchawana Bay . Bone Lake . Ranger Lake . St Marys River . Selected lakes throughout the District (tourist lakes, trophy lakes, fly-fishing only areas)	. Lake Superior . Tupper . Reilly . Lake Huron
. assess Great Lakes feeder streams for baseline data, potential areas for rehabilitation, and areas for possible species conversion	A3	. project to start in 1988 or 1989 subject to annual work plan funding, and will continue as funds permit	. Chippewa River . Stokely Creek . Root River	. Tilley . Havilland . Tarentorous
. determine where discrete fish stocks exist	A1	. project initiated in 1987 and is expected to continue through 1989 or 1990, funds providing	. Seine Island area . Lower St Marys R. . Echo River . Bar River	. Lake Huron . Lake Huron . Lake Huron . Lake Huron

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Inadequate Fisheries Information (Cont'd)				
• assess lakes for success of current or past stockings or the status of natural populations to determine if stocking is warranted	A1	• projects to be initiated by 1990 and thereafter as funding and scheduling permits	• Robertson Lake • Lake # 13 • Lake # 19 • Trout Lake	• Van Konghnet • Gaudry • McIlveen • Aweres
• assess lakes for potential to convert to another species (splake, rainbow trout, brown trout, walleye)	A1	• projects are scheduled to start in 1988 and will continue through 1992	• Paquette Lake • Upper Island Lake • Camp 12 Lake • McCarrolls Lake • Strawberry Lake • Graham Lake • Boat Lake • Dead Lake • Prince Lake	• Whitman • Jarvis • Reilly • Meredith • Reilly • Gaudry • Whitman • Hoffman • Prince
• determine status of selected lake populations	A4	• projects will start in 1989 and will continue through 1992 as funding permits	• Batchawana Bay • Ranger Lake • Bone Lake • Magrath Lake • Skintent Lake • Meredith Lake • McMahon Lake • Seine Island area • Lower St Marys R. • North Channel • Echo Lake • Rock Lake • Gordon Lake	• Lake Superior • Reilly • Tupper • Cuthbertson • Cuthbertson • Meredith • McMahon • Lake Huron • Lake Huron • Lake Huron • Kehoe • Aberdeen/Plummer • Plummer

A - additional funding required

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Inadequate Fisheries Information (Cont'd)				
			. Ottertail Lake . Caribou Lake . Desbarats Lake . Goulais River	. Plummer . Plummer/Johnson . Johnson . Deroche
. involve and encourage assessment units in an advisory role	B1	. ongoing practice that will be expanded, where practical and appropriate, through 1992		
. identify, inventory and map spawning beds and other sensitive habitat from historical and present records as well as field inventory programmes	A2	. ongoing programme - lake and stream survey and habitat inventory programmes - expected to continue through 1992	. List of lakes to be surveyed in Appendix III	
. initiate new commercial baitfish programme	B1	. new programme should be in place by 1988 and will continue through 1992	. All water throughout District	
. continue monitoring of commercial food-fish harvest	B1	. monitoring programme to be developed within the enforcement plan; will be place in 1988 and will continue through 1992	. Lake Superior . Lake Huron	

A - additional funding required; B - can be accomplished at existing funding level

TABLE 4. Five year implementation schedule for the Sault Ste. Marie District, 1988-1992 (Cont'd).

Tactic	Implementation Priority	Comments	Waterbody	Township
Problem/Issue: Inadequate Fisheries Information (Cont'd)				
• assess success/failure of implemented tactics	A1	• assessment of special regulations, stockings, etc. to start in 1989 and continue as required on an annual or periodic basis through 1992	• Selected waters throughout District	
• investigate areas of incomplete knowledge through the use of carefully designed and controlled experimental programmes	A4	• to be implemented as special funds become available through 1992	• Selected waters throughout District	
Problem/Issue: Undesirable Species Introduction				
• inform the public of the hazards of dumping live baitfish into waterbodies	B2	• will be included in the extension programme starting in 1988 and continuing through 1992		
• inform the public of the possibilities of transferring smelt to another waterbody while cleaning the catch	B2	• will be included in the extension programme starting in 1988 and continuing through 1992		

A - additional funding required; B - can be accomplished at existing funding level

References

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SPOF (Strategic Planning for Ontario Fisheries). 1976. Fourth report: management strategies for the 1980's. Ministry of Natural Resources mimeo report

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Glossary

Allowable Yield:
The yield by species as a result of partitioning the potential yield. The sum of allowable yields by species will not necessarily add up to the potential yield.

Angler Day:
While it is usually accepted that any amount of effort in a day constitutes one angler day, for the purposes of converting angler hours to angler days, four hours will be used.

Baitfish:
Any fish that are legally harvested by the commercial bait fish industry.

Catch per unit effort:
The number of fish caught in a given unit of time; usually for anglers it is the number of fish caught per hour.

Coldwater Lakes:
Those lakes having characteristics which would support Salmonids.

Coldwater Streams:
Those streams having characteristics which would support Salmonids.

Commercial Fish:
Any fish that are legally harvested by the commercial fishing industry.

Critical Fish Habitat:
Any fish habitat required for the maintenance of a healthy fish population or otherwise identified as essential to the achievement of the Ministry's fishery programme objectives.

Community:
A unit composed of all the living organisms in a given area. A fish community would mean all the different fish species in a given area.

Exploitation:
Use by man.

Goal:
A general purpose to which the Ministry aspires.

Harvested:
A natural resource extracted for use elsewhere.

Management:
The judicious use of means to achieve ends. Management may have various levels of intensity. For example, if a high degree of technology is used, or if very careful tending is given, the management is high level.

Objective:
A quantifiable and attainable end, which the Ministry's efforts are intended to accomplish.

Occasion:
A measure of actual recreational use describing the number of times a recreation reserve of facility is used by individuals in a given time period. An occasion is not considered to exceed one day in duration.

Opportunity:
A measure of recreation supply which is used to describe the number of times a resource or facility can be used (occasions of use) in a given time period. An opportunity is considered not to be greater than one day.

Optimum Yield:
A targetted amount of fish flesh to be removed from the water which may be more or less than the potential yield.

Population:
A species or otherwise discrete group of organisms.

Potential Yield:
The amount of fish flesh that can be removed from the water on a sustained basis.

Policy:
The decision concerning the objectives to be achieved and the means of achieving them. For resource management planning, we are mainly concerned with the objectives, targets, and strategies.

Production:
The total increase in new body weight within a given unit of time.

Rehabilitation:
Returning the fish community to a balanced state which best approximates the historical mix of species.

Riverine:
Pretaining to a river, as in riverine brook trout populations. Different from lake dwelling (lacustrine) brook trout populations.

Sportfish:
Any fish that are legally caught by angling.

Strategy:
Planned actions or measures to achieve a desired end.

Resource Management:
The wise use of a particular resource such as fish to achieve a specific end.

Tactic:
A method devised to achieve one or more strategies.

Target:
A quantified end to be achieved or completed by a specific date.

Top predators:
Species that prey on other fish and are not usually considered as prey themselves, eg., coho and chinook salmon; lake trout; brook trout; rainbow trout; northern pike; and walleye.

Users:
Persons or groups of persons who benefit from the resource.

Underproducing Waters:
Waters from which the production is constrained because of stresses such as water quality, species composition, overharvest, undesirable species.

Warmwater Lakes:
Those lakes other than coldwater lakes.

Warmwater Streams:
Those streams other than coldwater streams.

Wetlands:
Lands which are permanently or seasonally covered with shallow water and where distinctive soil conditions, plant and wildlife communities develop. These include wetland forests (swamps), marshes, bogs and fens.

Work Plan:
A plan prepared annually which defines what management activities are to be undertaken for that year.

Yield:
The portion of resource production removed from the ecosystem cycle.

Appendix I

Stocked Lakes in the Sault Ste. Marie District

Lake	Township	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
BROOK TROUT												
Affleck	Carton				*							
Armour	Hoffman		*		*			*	*		*	
Aquarium (Lake #1)	Hoffman	*		*		*		*		*		*
Boat	Whitman		*	*	*	*		*		*		*
Bojack	Tupper	*	*	*	*	*	*	*		*		*
Brilliant	Jarvis		*	*	*	*		*		*		*
Brown's Creek	Hilton								*	*		
Busch (Mary)	Gapp	*				*		*		*		*
Camp 12	Reilly	*		*								
Caycee	Slater	*	*		*			*	*		*	
Chalmers	Lunkie	*		*		*		*		*		*
Clove	Carton	*				*				*		
Crooked	Jarvis		*		*			*	*		*	
Dead	Hoffman	*	*									
Drew	Brule							*				
Elizabeth	Duncan	*		*		*		*		*		*
Finnlander	Aweres	*		*		*		*		*		*

Appendix I (Cont'd)

Lake	Township	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Garden	Hurlburt							*				
Gawas Creek	St. Joseph									*		
Graham	Gaudry		*		*			*		*		*
Grant	McMahon	*		*				*				
Gimlet	Ryan											
Havilland	Fenwick	*		*		*		*		*		*
Hoath	McMahon	*			*			*		*		*
Howard (Lake #3)	Gapp	*		*		*		*		*		*
Huff	Smilskey	*		*		*		*		*		*
Island	Whitman		*		*					*		
Kaufman	Jarvis	*		*		*		*		*		*
Lake #2	Nahwegezhic		*		*					*		
Lake #3	Smilskey									*		*
Lake #4	Smilskey									*		*
Lake #9	Jarvis		*	*	*	*		*		*		*
Lake #11	Nicolet		*		*			*			*	
Lake #11	Smilskey									*		*
Lake #13	Gaudry	*		*		*						
Lake #19	McIlveen		*	*	*	*						
Lake #37	Norberg		*	*	*	*						
Little Drew	Brule							*				
Little Turkey	Wishart		*		*			*	*		*	
Lower Island	Aweres				*							

Appendix I (Cont'd)

Lake	Township	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Mable	Duncan	*	*	*	*	*		*		*		*
McGovern	Olsen	*				*		*	*			*
Meenach	Davieux								*	*		*
Metivier (Dam)	Whitman		*	*	*	*	*				*	
Morrison	Nahwegezhic				*							
Mountain	McMahon	*		*	*			*		*		*
Pancake	Herrick				*							
Paquette	Whitman	*		*	*			*				
Patter	Gaudry		*		*						*	
Phelbin #1	Jarvis	*		*		*		*		*		*
Phelbin #2	Jarvis		*	*	*	*	*				*	
Pickard	Tupper		*		*				*		*	
Poem	Nahwegezhic	*				*		*		*	*	*
Prince	Prince	*	*		*		*		*		*	
Round	McIlveen		*		*			*	*		*	
Sandy	Duncan		*	*	*	*	*		*		*	
Strums	Curtis	*	*		*					*	*	
Strawberry	Reilly		*		*							
Tupper	Tupper	*		*		*		*				*
Weashcog	Jarvis		*		*						*	
West Jocko	Kincaid		*				*		*		*	

Appendix I (Cont'd)

Lake	Township	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
LAKE TROUT												
Anvil	Handleman	*			*	*						
Big Turkey	Wishart		*		*			*	*		*	
Devil's (Deil)	Whitman		*		*				*		*	
Fern	Whitman		*		*			*		*		*
Garden	Hurlburt									*		
Island (McMahon)	McMahon	*		*		*		*		*		*
Jarvis	Jarvis		*		*			*			*	
Lonely	Meredith	*		*		*		*		*		*
McCarrolls	Meredith	*		*	*	*		*		*		*
Northland	Deroche		*		*		*	*			*	
Patten	McMahon	*		*		*		*		*		*
Quintette #2	Olsen		*		*			*			*	

Appendix I (Cont'd)

Lake	Township	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Ranger	Reilly								*			
Robertson	VanKoughnet					*		*		*		
South Anvil	McIlveen	*			*	*			*			
Spruce	Davieux		*		*			*		*		*
Trout	Aweres		*		*		*	*	*		*	
Trout	Dablon		*		*			*		*		*
Upper Island	Aweres		*		*		*		*		*	
SPLAKE												
Hart	Aberdeen							*	*	*	*	*
Lower Island	Aweres											*
Pipe	Nicolet							*	*	*	*	*
Tower	Aberdeen										*	*
Vixen	Daumont							*	*	*	*	*

Appendix II

Stocking Programme, 1988 - 1992

Lake	Township	1988	1989	1990	1991	1992
BROOK TROUT						
Armour	Hoffman		*			*
Aquarium (Lake #1)	Hoffman		*			*
Bojack	Tupper	*		*		*
Brilliant	Jarvis	*	*	*	*	*
Busch (Mary)	Gapp		*		*	
Camp 12 (Laurence)	Reilly	*			*	
Caysee	Slater	*		*		*
Crooked	Jarvis		*			
Elizabeth	Duncan					*
Finn	Aweres	*	*	*	*	*
Grant	McMahon	*		*		*
Gimlet	Ryan	*	*		*	
Havilland	Fenwick				*	
Hoath	McMahon		*		*	
Howard (Lake #3)	Gapp		*		*	
Huff	Smilsky			*		
Island (Roussain)	Whitman	*		*		*
Kaufman	Jarvis	*		*		*
Lake #2	Nahwegezhic	*		*		*
Lake #9	Jarvis	*	*	*	*	*
Lake #11	Nicolet	*	*		*	
Little Turkey	Wishart	*		*		*

Appendix II (Cont'd)

Lake	Township	1988	1989	1990	1991	1992
McGovern	Olsen		*		*	
Meenach	Davieux		*		*	
Metivier (Dam)	Whitman	*		*		*
Mountain	McMahon		*		*	
Patter	Gaudry	*		*		*
Phelbin #1	Jarvis	*	*	*	*	*
Phelbin #2(WhiteBirch)	Jarvis	*	*	*	*	*
Pickard	Tupper		*		*	
Poem	Nahwegezhic		*		*	
Round (Friendly)	McIlveen	*		*		*
Sandy	Duncan			*		
Strums	Curtis	*		*		*
Tupper	Tupper	*		*		*
West Jocko	Kincaid	*	*		*	
LAKE TROUT						
Big Turkey	Wishart	*		*		*
Devil's (Deil)	Whitman	*		*		*
Fern	Whitman		*		*	
Garden	Hurlbert		*		*	
Island (McMahon)	McMahon	*		*		*
Jarvis	Jarvis	*	*	*	*	*
Meredith (Lonely)	Meredith		*		*	
McCarroll	Meredith		*		*	
Northland	Deroche	*		*		*
Patten	McMahon		*		*	
Quintet #2	Olsen	*		*		*
Trout	Dablon		*		*	
Upper Island	Aweres	*	*	*	*	*

Appendix II (Cont'd)

Lake	Township	1988	1989	1990	1991	1992
SPLAKE						
Hart	Aberdeen	*	*	*	*	*
Lake #27	Olsen		*		*	
Pipe	Nicolet	*		*		*
Tower	Aberdeen	*	*	*	*	*
Vixen	Daumont	*	*	*	*	*
Paquette	Whitman			*	*	*
BROWN TROUT						
Boat	Whitman			*	*	*
Heyden	Aweres					*
Lower Island	Aweres			*	*	*
RAINBOW TROUT						
Weashcog	Jarvis		*		*	
Robertson	VanKoughnet	*		*		*

Appendix III

Stocked Lakes to be Assessed for Possible Conversion to Another Species

Lake	Township	Potential Conversion Species
Lakes Traditionally Stocked with Brook Trout		
Boat	Whitman	Brown Trout
Camp 12	Reilly	Splake
Lake #3	Smilsky	Brown Trout
Lake #4	Smilsky	Brown Trout
Lake #11	Smilsky	Brown Trout
Lower Island	Aweres	Splake
Lower Island	Aweres	Brown Trout
Paquette	Whitman	Splake
Prince	Prince	Walleye
Strawberry	Reilly	Splake
Weashcog	Jarvis	Rainbow
Lakes Traditionally Stocked with Lake Trout		
Spruce	Davieux	Splake
Trout	Aweres	Splake
McCarrolls	Meredith	Splake
Patten	McMahon	Splake
Other Lakes		
Heyden	Aweres	Brown Trout
Edith	Meredith	Rainbow

Appendix IV

Sault Ste. Marie District Lake Survey Programme, 1988 - 2000

LAKE	TOWNSHIP
Lower Island Lake	Aweres
Boat Lake	Reilly
Strawberry Lake	Reilly
Recluse Lake	Marne
Pike Lake	Marne
Haines Lake	Marne
Merriville Lake	Marne
Clearwater Lake	Jarvis
Grassy Lake	Jarvis
Lakes 1,2,3,4,5,6,7, 8,10,11,12,13,14, 15,16,17,18,19,20, 21,22,23,24,25,26, 27,28,29,30,31,33, 34,35	Jarvis
McIntyre Lake	Aweres
Birch Lake	Aweres
Maki Lake	Aweres
Red Rock Lake	Aweres
Pants Lake	Aweres
Deadman Lake	Aweres
Heyden Lake #2	Aweres
Heyden Lake #3	Aweres
Lakes 8,9,10,11,12, 13,14,15,16,17,18, 19,20,21,22	Aweres
Maple Lake	Deroche
Mine Lake	Deroche
Lakes 1,2,3,4,5,6, 7,8	Deroche
Clear Lake	Desbiens
Lake #7	Pennefather
Lake #9	Grenoble
Lake #25	Laverendrye
Lakes 20,21,22,23	Gapp
Gord Lake	Carton
Forester Lake	Gapp
Watson Lake	Gapp
Lake #24	Lunkie

Appendix IV (Cont'd)

Sault Ste. Marie District Lake Survey Programme, 1988 - 2000

LAKE	TOWNSHIP
Dyson Lake	Wlasy
Snyder Lake	Wlasy
Galoway Lake	Wlasy
Lake #16	Way-White
Lake #17	Way-White
Camel Lake	Schembri
Bliss Lake	Schembri
Graham Lake	Gaudry
Dead Lake	Hoffman
Limerick Lake	Bracci
Emerson Lake	Bracci
Hodgson Lake	Wlasy
Iron Lake	Tupper
Raffle Lake	Reilly
Camp 12 Lake	Reilly
Dismal Lake	Way-White
Logan Lake	Way-White
Nod Lake	Daumont
Golf Lake	Daumont
Julian Lake	LaVerendrye
Upper Twin A Lake	McIlveen
Upper Twin B Lake	McIlveen
Lake #9 (Foxwell)	Hoffman
Red Pine Lake	Gapp

Appendix V

Stocking for Eastern Lake Superior

Stocking sites and yearling fish to be stocked in Eastern Lake Superior for rehabilitation purposes and to maintain or provide recreational fisheries for the years 1985 to 1992 are listed by priority.

Stocking Site	1985	1986	1987	1988	1989*	1990	1991	1992
Rehabilitation								
Coppermine Point	50,000		100,000			100,000	100,000	100,000
Pancake Shoal	47,000	82,000	82,000			100,000	100,000	100,000
Montreal Shoal	80,000	89,000	95,000			100,000	100,000	100,000
Mica Bay		96,000	61,000			100,000	100,000	100,000
Parisienne Shoal	107,000		65,000			100,000	100,000	100,000
Maple Island			17,000			100,000	100,000	100,000
Maple Point						100,000	100,000	100,000
Goulais Point				79,563		100,000		
Jackson Island						100,000	100,000	100,000
Sinclair Cove			48,000				100,000	100,000
Wilson Lake Causeway				20,238				
Red Rock				102,867				
Mamainse Harbour				95,388				
Recreational Areas								
Michipicoten Bay	40,000	80,000	27,000					
Montreal River		50,000	49,000					
Batchawana Bay	40,000	102,000	103,000					
Batchawana Dock				114,002		100,000	100,000	100,000
Lapointe's Point				38,304				
Harmony Dock				41,373				
TOTAL	364,000	499,000	647,000	491,735		1,000,000	1,000,000	1,000,000

* No lake trout to be stocked in Eastern Lake Superior in 1989 due to the changeover from the old to the new Tarentorus Fish Culture Station.

SAULT STE. MARIE DISTRICT

CHAPLEAU

WAWA

Theano Pt
Alona B
Pte aux Mines
Mica B
Mamainse Pt
Hibbard B
Pancake B
Pancake R
Mamainse L
Mamainse Hill 1958'
Nepick Cr
Bay L
Pike
Huff
Big
Queminico L
Batchawana
Batchawana Mtn 2100'
Adelaide L
Harmony
Tilley Lks
Kerwin L
Carp L
Chippewa R
Chippewa Falls
Batchawana Bay
563
Batchawana Indian Village
Harmony B
IR15E
Batchawana I
Batchawana Bay
N Sandy I
S Sandy I
Rudderhead Pt
Maple I
17
Wolfe I
Upper L
Picard L
Bone L
King Mtn
Karalash Corners
Robertson L
Goulais R
Wart L
Batchewana Mongoose L
1426' Summit
Quintet Lks
Dick L
McGovern L
Griffin L
Spruce R
Tribble L
Gavor L
Mekatina
Alva L
Mashkode
Trout L
Ogidaki 1208'
Bucyrus
Achigan L
Achigan R
Icewater Cr
Wabos Cr
Perry Cr
Searchmont
Goulais R
Emerson
Little Quinn L
N. Chubb L
Dyson L
Distal L
Quinn L
Hanes L
Point L
Patter L
Goulais R
Lawer L
Megisan L
Prairie L
West Aubinadong R
Chubb L
Goulais
South Branch L
Welcome
Gong L
Anvil L
Cowie L
Tujak L
Lac Cherie
Morrison L
Ogidaki Mtn
Saddle L
Laughing L
Saymo L
East Goulais R
Golf L
West Arm
1439'
Ranger Lake
Ranger Lake
Perel L
Vixen L
Deil L
Little Garden R
Garden L
Ma L

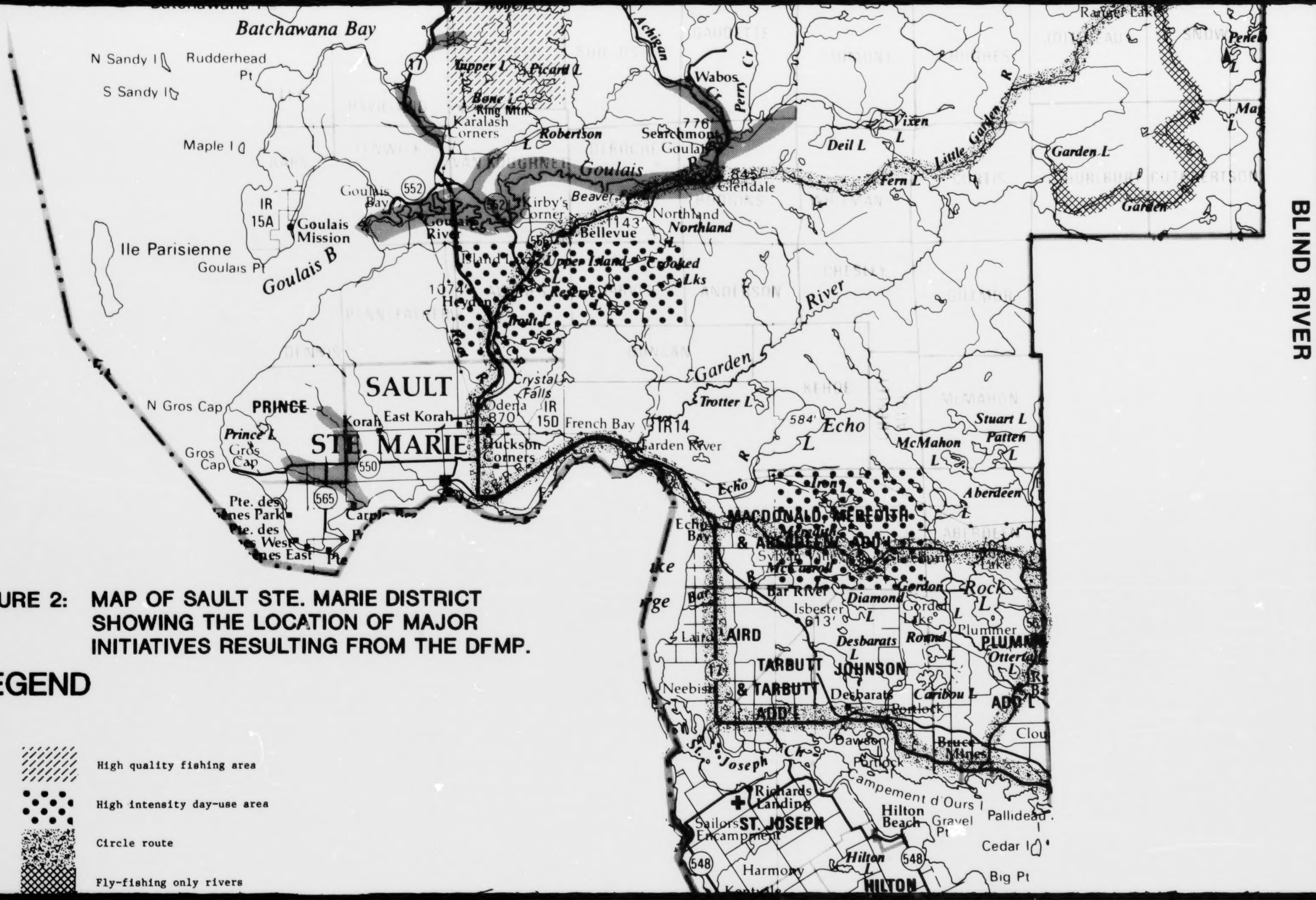

FIGURE 2: MAP OF SAULT STE. MARIE DISTRICT SHOWING THE LOCATION OF MAJOR INITIATIVES RESULTING FROM THE DFMP.

LEGEND

- High quality fishing area
- High intensity day-use area
- Circle route
- Fly-fishing only rivers

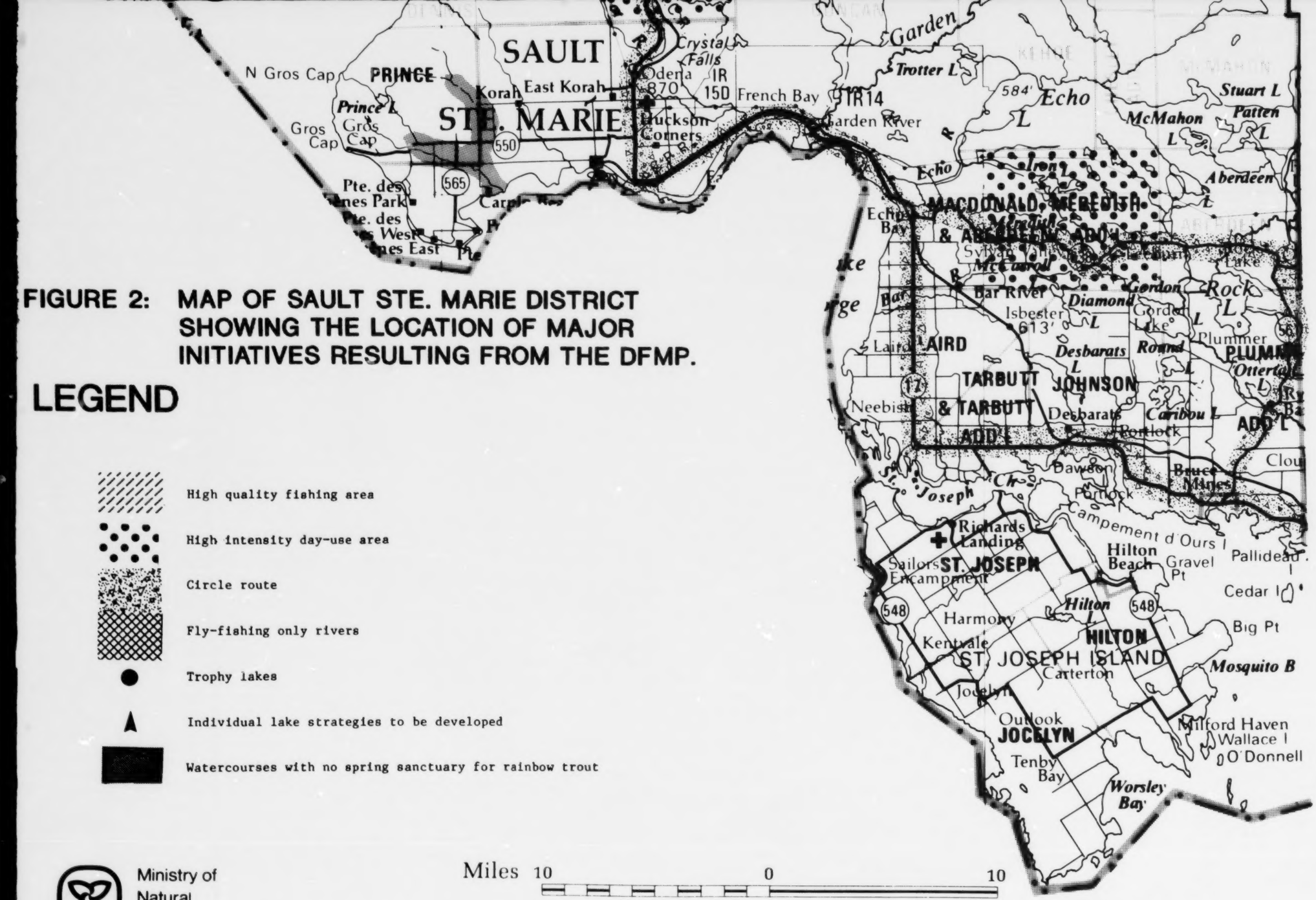

FIGURE 2: MAP OF SAULT STE. MARIE DISTRICT SHOWING THE LOCATION OF MAJOR INITIATIVES RESULTING FROM THE DFMP.

LEGEND

- High quality fishing area
- High intensity day-use area
- Circle route
- Fly-fishing only rivers
- Trophy lakes
- Individual lake strategies to be developed
- Watercourses with no spring sanctuary for rainbow trout

Ministry of Natural Resources
Ontario

Miles 10 0 10

Kilometres 10 0 10

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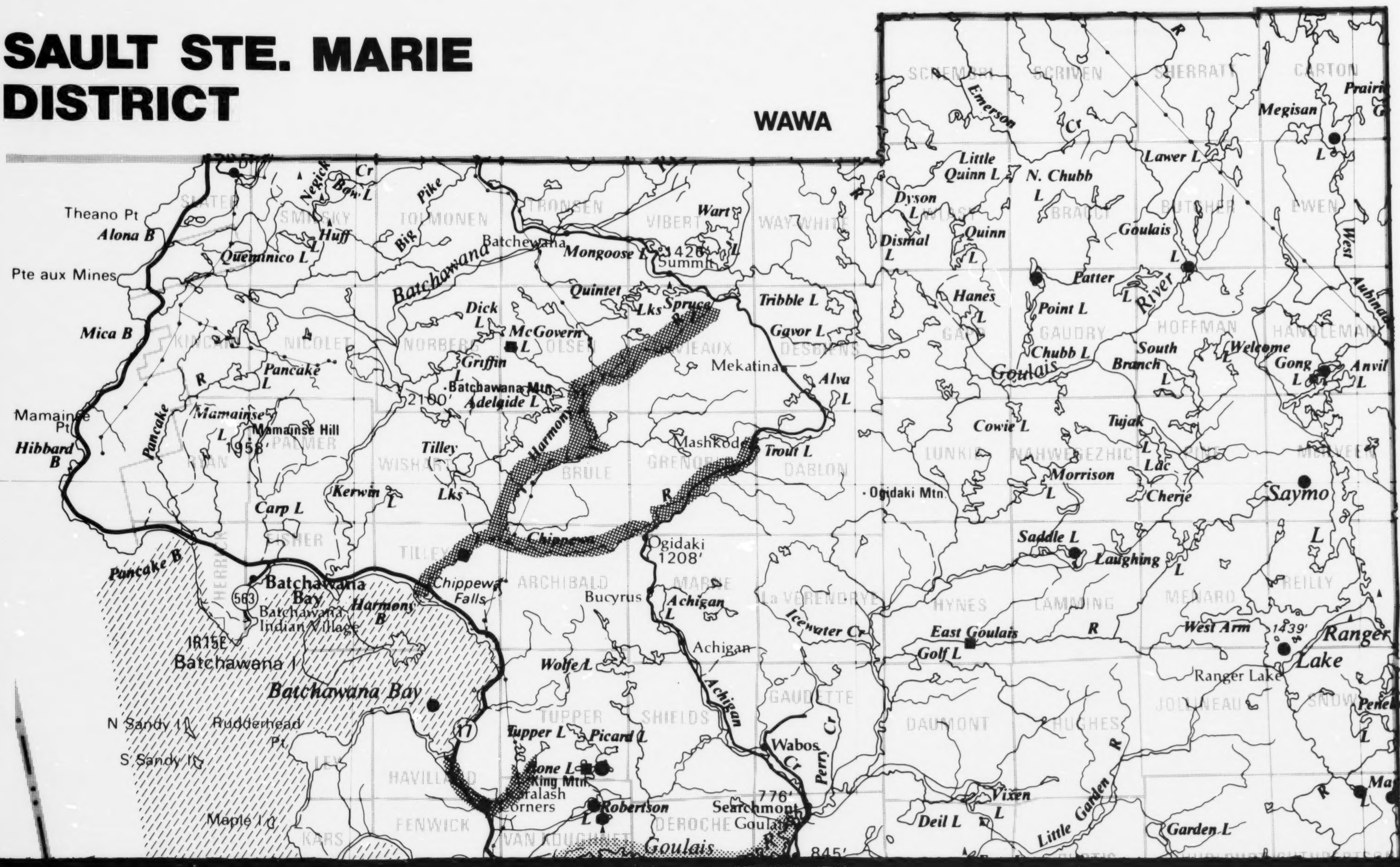
SAULT STE. MARIE DISTRICT



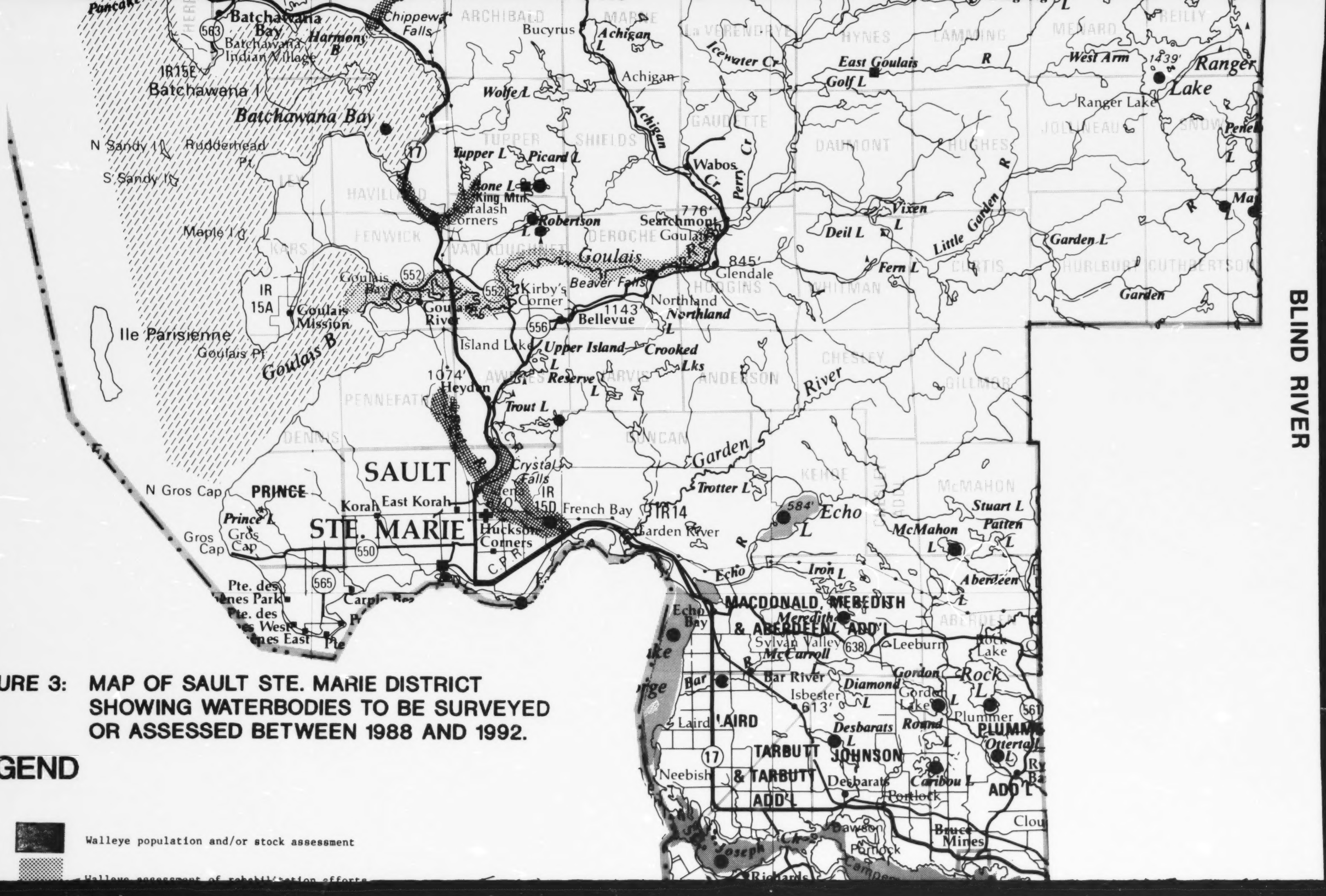


FIGURE 3: MAP OF SAULT STE. MARIE DISTRICT SHOWING WATERBODIES TO BE SURVEYED OR ASSESSED BETWEEN 1988 AND 1992.

FIGURE 3: MAP OF SAULT STE. MARIE DISTRICT SHOWING WATERBODIES TO BE SURVEYED OR ASSESSED BETWEEN 1988 AND 1992.

LEGEND

- Walleye population and/or stock assessment
- Walleye assessment of rehabilitation efforts
- Forage Base assessment
- Stream population assessment
- Population assessments (funds permitting)
- Lakes to be assessed for species conversion potential
- Waterbodies for assessment of new regulations
- Algoma Fisheries Assessment Unit lakes

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